DOCUMENT RESUME

ED 302 580 TM 012 641

AUTHOR	Johnson, Janet R., Comp.
TITLE	National Assessment of Educational Progress 1983-1987: A Bibliography of Documents in the ERIC Database.
INSTITUTION	National Assessment of Educational Progress, Princeton, NJ.
SPONS AGENCY	Center for Education Statistics (OERI/ED), Washington, DC.
PUB DATE	Sep 88
GRANT	NIE-G-83-0011
NOTE	191p.
PUB TYPE	Reference Materials - Bibliographies (131)
EDRS PRICE	MF01/PC08 Plus Postage.
DESCRIPTORS	*Databases; *Educational Research; Educational Resources; Information Retrieval; Literature Reviews
IDENTIFIERS	*ERIC; *National Assessment of Educational Progress

ABSTRACT

This is a bibliography of documents published from 1983 to December 1987 on the National Assessment of Educational Progress (NAEP) contained in the database of the Educational Resources Information Center (ERIC). The extensive literature is organized into a compendium of 244 abstracts of research relating to NAEP to make a useful tool for other research. The format for each entry is a streamlined version of the standard ERIC document resume. Entries can be accessed through: (1) a taxonomy matrix; (2) the subclassification of selected cells of the taxonomy matrix; (3) the ready reference or popular index; (4) the author index; and (5) "The Nation's Report Card" commissioned papers. Because NAEP is a rich source of information on American education, papers referenced here should be useful to many concerned with current thinking and research in education. (SLD)

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NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS 1983-1987:

A Bibliography of Documents in the ERIC Database

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Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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September 1988

National Assessment of Educational Progress
Educational Testing Service
Princeton, NJ

TM012641

The National Assessment of Educational Progress is funded by the U. S. Department of Education under a grant to Educational Testing Service. National Assessment is an education research project mandated by Congress to collect data over time on the performance of young Americans in various subject areas. It makes available information on assessment procedures to state and local education agencies.

This document is based upon work performed pursuant to Grant No. NIE-G-83-0011 of the Office for Educational Research and Improvement, Center for Education Statistics. It does not, however, necessarily reflect the views of that agency.

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NAEP 1983-1987: A Bibliography of Documents in the ERIC Database

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Acknowledgements

I would like to extend my heartfelt appreciation to a number of persons who have added their thoughtful insights and enthusiastic support for the creation and execution of this bibliography.

Al Beaton for protecting me from the onslaught of other demands so that a timely completion has been possible.

Gene Johnson for soundly starting me off on the right track with the charting of the taxonomy matrix and for his continued enthusiasm for the finished project.

John Tukey for sharing lunch time with me over the development of the subclassification system.

Larry Rudner and Paula Hannaman of ERIC for explaining their system and being supportive of the project.

Karen McQuillan for searching appropriate databases and extracting the raw material from which the bibliography was tailored.

Molly Joy for her grand suggestion of organizing using a matrix concept.

Debbie Kline for her calm demeanor and technical expertise.

Sharon Stewart without whom I could absolutely not have managed. She typed, proofed, designed and maintained a good humor; in short, we worked hand-in-glove and got the job done.

I. INTRODUCTION

This is a bibliography of documents and journal articles contained in the database of the Educational Resources Information Center (ERIC) that bear reference to the National Assessment of Educational Progress (NAEP). The documents considered here are those which were published between mid-1983 and December 1987.[1] The purpose of this bibliography is to list and organize the extensive literature into a compendium of abstracts of research relating to NAEP. The intent has been to create a useful and usable research tool.

NAEP BACKGROUND

The Nation's Report Card, the National Assessment of Educational Progress, is an ongoing, congressionally-mandated project established to conduct national surveys of the educational attainments of young Americans. Its primary goal is to determine and report the status and trends over time in educational achievement. NAEP was created in 1969 to obtain comprehensive and dependable national educational achievement data in a uniform, scientific manner. Today, NAEP remains the only regularly conducted national survey of educational achievement at the elementary, middle, and high school levels.

Since 1969, NAEP has assessed 9-year-olds, 13-year-olds, and 17-year-olds attending public and private schools. In 1983, NAEP began sampling students by grade as well as by age. In addition, NAEP periodically samples young adults. The subject areas assessed have included reading, writing, mathematics, science, and social studies, as well as citizenship, computer understanding, literature, art, music, and career development. Assessments were conducted annually through 1980 and have been conducted biennially since then. Recent assessments have included reading, writing, mathematics, science, computer understanding, literacy, literature, and U.S. history. To date, NAEP has assessed approximately 1,300,000 young Americans.

To improve the utility of NAEP achievement results and provide the opportunity to examine policy issues, in recent assessments NAEP has collected information about numerous background issues. Students, teachers, and school officials answer a variety of questions about demographics, education-related activities and experience, attitudes, curriculum, and resources.

NAEP is supported by the U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics. In 1983, the Educational Testing Service assumed the responsibility for the administration of the project, which had previously been administered by the Education Commission of the States. NAEP is governed by an independent, legislatively defined board, the National Assessment Governing Board.

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[1] Researchers interested in publications pertaining to the period 1969 to mid-1983 should consult the earlier bibliography: National Assessment of Educational Progress 1969-1983: A Bibliography of Documents in the ERIC Database. Theodore B. Pratt, Ed. National Assessment of Educational Progress, Education Commission of the States, 1983.

USING THE BIBLIOGRAPHY

A total of 244 abstracts are considered in this bibliography. These correspond to all documents produced between mid-1983 and December 1987 that have been incorporated into the ERIC database as of March 1988. The list is exhaustive for all entries prior to March 1988 but does not include any entries made after that date.[2]

The entries are extremely varied and rich in scope. For example, many of them range across NAEP subject areas as well as across assessment years; some address policy implications of NAEP in general while others investigate particular findings within a single assessment. The disparate nature of these documents precludes any simple organizational schema. Indeed, discrete pigeonholing of most of these documents would be impossible as well as unjust. The organization of this bibliography is designed to reflect this diversity.

As each of the 244 entries in the bibliography was extracted from the ERIC database it was assigned its own unique identification number. The numbers are, to a certain degree, chronological insofar as numbers 1 through 54 are documents produced in 1983; 55 through 95 are documents produced in 1984; 96 through 138 were produced in 1985; 139 through 210 were produced in 1986; and 211 through 244 were produced in 1987. While it is tempting to relate the number of entries to usage of NAEP data across the years, it must be remembered that the date of inclusion in the ERIC database is later than the date of publication and that not all of the 1987 works were included in the ERIC system at the time of the search of the ERIC database.

The entries appearing in this bibliography contain essential information about each document including a synopsis of the document and all ordering or locating information that the researcher may need. This format is a streamlined version of the standard ERIC document resumes. Included for each entry are:

1) The ERIC accession number (EJxxxxxx for Current Index to Journals in Education [CIJE] documents appearing in periodicals or journals, and EDxxxxxx for Resources in Education [RIE] documents).

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[2] In order to obtain the entries contained in the bibliography, a computer search was made of the ERIC database. For the period mid-1983 through December 1987 the ERIC file on a CD-ROM was used. An on-line search of the ERIC file on the mainframe ERIC database was undertaken in March 1988 to pick up any recent entries that had not yet been put onto a CD-ROM.

2) Title and author

3) For ED documents: Date of publication, number of pages, and EDRS price information.

For EJ documents: Name of journal, volume, page numbers and date and availability through University Microfilms International (UMI).

4) The document abstract provided by ERIC.

(For information on how to order ED and EJ documents please see the appropriate section below.)

The bibliographic entries can be accessed through five pathways. These five pathways are: Index 1 - the taxonomy matrix; Index 2 - the subclassification of selected cells of the taxonomy matrix; Index 3 - the ready reference or popular index; Index 4 - the author index; Index 5 - The Nation's Report Card commissioned papers.

Index 1, the taxonomy matrix is the most comprehensive of the indices included in the bibliography. In this matrix, each document is classified according to two major criteria. One criterion is subject area related and addresses the subjects assessed by NAEP. The NAEP subject areas that have been investigated, researched and thoughtfully written about between mid-1983 and December 1987 are social studies/citizenship, reading, writing, science, mathematics, computer literacy/competence, higher order thinking, art/music, literacy, speaking and listening, and U.S. history and literature. Documents that deal with a given subject are identified with that subject; those that deal with several subjects are linked with each subject; while those that are not concerned with any subject in particular are linked with the NAEP General category.

The other criterion in the matrix is descriptive and cuts across subject areas. The classifications within the descriptive criterion are:

- o Measurement Theory/Methodological Issues
- o Demographics
- o Achievement/Performance
- o Attitude/Motivation
- o Education and School Assessment/Policy/Improvement
- o Trends
- o States
- o International
- o Official NAEP Assessment Publications and Papers
- o Secondary Analyses

The classifications are not exclusive so that a given document may appear in several places.

Thus, a document will appear in at least one cell of the taxonomy matrix, depending on its standing on the two major criteria, although it may appear in more than one cell if the document has components described by multiple classifications.

Certain of the cells are very popular (such as the Measurement Theory by General cell). For such cells, which contain more than ten entries, a further subclassification was undertaken. These subclassifications are given as Index 2. As with Index 1 there is the possibility of cross-pollination of topics within each cell but, unlike Index 1, each entry appears only once.

Index 2 takes each Index 1 cell that contains more than ten entries and "explodes" it by categorizing the entries within it to aid the researcher in zeroing in on particular topics of interest. This was accomplished by looking for larger themes contained in each document or article and using the major theme as the descriptor.

As with Index 1, judgments have had to be made as to specific categorizations or descriptors and many papers contain more than one topic by which it could be described. For example, the abstract for entry #145 entitled "The State of Instruction in Reading and Writing in U.S. Elementary Schools" by A. Lapointe reads as follows:

> **Summarizes 15 years of National Assessment of Educational Progress data on reading and writing in elementary schools. While reading performance has improved over the 1971-1984 period for black and Hispanic 9- and 13-year-olds and for younger disadvantaged children, writing results are less encouraging. Effective writing instruction may require more than variety and hard work.**

This entry could be useful to researchers looking into a number of topics such as reading, writing, instruction, trends over time, minorities, performance, or elementary education, to suggest a few, and could legitimately be described by any of these break-downs. In Index 1 this entry is noted under both reading and writing and occurs in the rows of Demographics, Achievement/Performance and Trends (see pgs. 7, 8, 9). In Index 2 only the Reading by Demographics and the Reading by Achievement/Performance cells have been exploded and subclassified since they were the only ones of interest in this example that contained more than ten entries each. In the Reading by Demographics exploded cell (see pg. 16) the subclassification selected was 'trends' because the abstract clearly states that the article "Summarizes 15 Years of National Assessment..." An argument could be made for placing this entry under 'minorities' as well since the abstract further mentions Black and Hispanic students. However, judgments have had to be made and it was thought prudent to use the larger theme for this entry in Index 2. The same reasoning was followed for our example entry #145 by subclassifying it under 'instruction' in the exploded cell of Reading by Achievement/Performance.

For those researchers who are thinking at this point that they would indeed like to be able to find our example entry #145 listed under 'minorities' as well as these other designations, please turn to Index 3. Index 3 is designed as a ready reference, popular index and our entry #145 is seen to appear under both the heading Black and the heading Hispanic. Index 3 highlights the main entries in yet a different way by focusing on key words within the entries themselves.

Each of the first three indices are calculated to encompass in a different way the varied nature of the entries and lead the researcher to all those abstracts of interest no matter which approach he or she may initially adopt. Each of these three indices ought to be consulted in conjunction with researching a given topic.

Index 4 is an author index which lists all authors whose works are contained in this bibliography and provides the titles of their documents or journal articles accompanied by the unique identifying number for ease of location of the entry in the main section of the bibliography.

The recent report entitled The Nation's Report Card: Improving the Assessment of Student Achievement. Report of the Study Group. With a Review of the Report by a Committee of the National Academy of Education by Lamar Alexander, H. Thomas James and Robert Glaser has engendered considerable discussion and become recognized as a landmark report on American education. There were 46 papers commissioned by the Study Group on the National Assessment of Student Achievement all of which are contained within the ERIC database and referenced in this bibliography. Because of the current interest and general importance of the 'Alexander/James' Report, as it is called in common parlance, Index 5 has been created. This index presents the identifying number of each of the 46 papers as they appear in the bibliography to allow ease in locating the pertinent abstracts. As a research convenience, Index 5 also categorizes each paper by general subject headings.

As stated earlier, the sole intent of this bibliography is to provide a useful and usable research tool. NAEP is a very rich source of information on American education and the papers referenced here should prove enormously useful to many individuals concerned with and interested in current thinking and research in education.

HOW TO ORDER ED AND EJ DOCUMENTS

The documents cited in Resources in Education (ED) except as noted, are available from the ERIC Document Reproduction Service (EDRS), in either microfiche (MF) or paper copy (PC). The price per document is based on the number of pages and is subject to change. Current price information for documents, microfiche, and subscriptions to microfiche collections, is to be found on the page entitled "How to Order ERIC Documents," in the most recent issue of RIE. The address for ordering ERIC documents is:

ERIC Document Reproduction Service (EDRS)
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Alexandria, VA 22304
(703) 823-0500

Copies of many of the articles in CIJE are available from University Microfilms International (UMI). Those articles available are indicated by the presence of '(Reprint: UMI)' following the journal citation data in the Main Entry Section. The price is $9.50 for each article, and must be prepaid. Payment options include check or money order to University Microfilms or credit card (MasterCard, VISA, American Express). Indicate card number and expiration date. Deposit accounts (minimum #200 are

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available. Lower prices are available to deposit account customers. Electronic ordering is also available at lower prices. The price for articles written before 1978 is $11.00 per particle and is $8.00 each for articles written in 1978 or later. Contact UMI for further information. Additional copies of the same article are $2.25 each. Articles are reproduced to approximately original size, to a maximum of 8-1/2 x 11 inches.

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American School Board Journal
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Television: What Do National Assessment Results Tell Us? 1986 (193)

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State Testing and the Educational Measurement Community: Friends or Foes? 1985 (108)

Student Achievement in America: State Policy Implications for a High Technology Economy. 1983 (30)

Annual Illinois Student Achievement Report.
Illinois State Board of Education, Springfield. 1985 (123)

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NAEP: The Nation's Report Card. 1983 (10)

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Learning to be Literate in America: Reading, Writing, and Reasoning. The Nation's Report Card. 1987 (242)

The Writing Report Card: Writing Achievement in American Schools. 1986 (202)

Learning to Be Literate in America: Reading, Writing, and Reasoning. The Nation's Report Card. 1987 (219)

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Writing: Trends Across the Decade, 1974-84. 1986 (206)

Grammar, Punctuation, and Spelling: Controlling the Conventions of Written English at Ages 9, 13, and 17. The Nation's Report Card. 1987 (240)

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A Comparison of Guided Assignments and NAEP Format Tests on Adolescent Response to Literature. 1987 (239)

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Improving the Mathematical Skills of Low Achievers. ERIC/CUE Fact Sheet Number 18. 1983 (25)

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A Pilot Study of Higher-Order Thinking Skills Assessment Techniques in Science and Mathematics--Part I and Pilot-Tested Tasks--Part II. Final Report. 1986 (191)

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Designing the National Assessment of Educational Progress to Serve a Wider Community of Users: A Position Paper. 1986 (188)

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Productive Factors in School Learning: A Quantitative Synthesis of National Assessment Studies. 1983 (47)

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Using State Test Data for National Indicators of Education Quality: A Feasibility Study. Final Report. 1985 (126)

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The Condition of Information on Education. Statement Made before the Select Education Subcommittee on Education and Labor, House of Representatives. 1986 (207)

Chemical and Engineering News.
Academic Gap Between High and Low Achievers Narrowing. 1983 (18)

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Educational Testing Service, Princeton, NJ: National Assessment of Educational Progress, Princeton, NJ
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ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill.
Testing and Evaluation in Reading and Communication Skills: Abstracts of Doctoral Dissertations Published in "Dissertation Abstracts International," January through June 1985 (Vol. 45 Nos. 7 through 12). 1985 (135)

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Using Residual Analyses to Assess Item Response Model-Test Data Fit. Laboratory of Psychometric and Evaluative Research Report No. 140. 1983 (33)

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National Inst. of Education (ED), Washington, DC
The Reading Report Card: Progress Toward Excellence in Our Schools. Trends in Reading over Four National Assessments, 1971-1984, Report No. 15-R-01. 1985 (128)

Nelson, David E.
Utah Educational Quality Indicators. The Sixth in the Report Series: "How Good are Utah Public Schools." 1986 (192)

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Utah Educational Quality Indicators. The Fifth in the Report Series: How Good are Utah Public Schools? 1983 (45)

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THE NATION'S REPORT CARD - COMMISSIONED PAPERS

ED279662
The Nation's Report Card: Improving the Assessment of Student Achievement. Report of the Study Group. With a Review of the Report by a Committee of the National Academy of Education.

Alexander, Lamar; James, H. Thomas; Glaser, Robert
National Academy of Education, Cambridge, MA. 1987
EDRS price - MF01/PC04 Plus Postage
Journal Announcement: RILJUL87

46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

The abstracts of the 46 papers appear in this bibliography and their respective numbers are:

148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 222, 223, 224, 225

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DOCUMENT ENTRIES

SAMPLE ENTRY

Accession No.	EJ313063	
	An Item Response Model for the Estimation of Demographic Effects.	**Article Title**
Author	Reiser, Mark	
Journal Title	Journal of Educational Statistics, v8 n3	
	p165-86 Fall 1983	**Publication Date**
Availability	Available From: UMI	
Abstract	In studies involving matrix sampling ~~on items~~, is often the case that there are two few responses per individual to use latent trait item response models. A model is formulated wherein individual level variability appears as independent error within the cells of a cross classification of demographic variables.	**Pages** **Issue No.**

* * * * *

1

EJ313063
An Item Response Model for the Estimation of Demographic Effects.
Reiser, Mark
Journal of Educational Statistics, v8 n3 p165-86 Fall 1983
Available From: UMI

In studies involving matrix sampling on items, it is often the case that there are too few responses per individual to use latent trait item response models. A model is formulated wherein individual level variability appears as independent error within the cells of a cross classification of demographic variables.

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2

EJ298577
Applying the National Assessment Model to Research on Rural Social Studies.
Easton, Stanley E.
Research in Rural Education, v2 n1 p35-38 Spr 1983

Describes the National Assessment of Educational Progress Model and outlines and advocates its application in research on rural social studies. Notes its usefulness in assessment situations. Explains how the model will produce data descriptive of a target population and will permit the comparison of local and national results.

* * * * *

3

EJ297944
Reading Achievement and Attitude Productivity among 17-Year Olds.
Walberg, Herbert J.; Tsai, Shiow-ling
Journal of Reading Behavior, v15 n3 p41-53 1983
Available From: UMI

Probes the association of reading achievement and attitude with productive factors in learning by regressing on 18 indices of seven factors the scores of more than 2,000 17-year-old students from a National Assessment of Educational Progress sample.

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4

EJ296219
Recent Reform Proposals for American Education.
Stedman, Lawrence C.; Smith, Marshall S.
Contemporary Education Review, v2 n2 p85-104 Fall 1983

The reports of four recent reform proposals for American education were analyzed: "A Nation at Risk," "Action for Excellence," "Academic Preparation for College," and "Making the Grade." The authors concluded that the commissions used weak arguments and poor data. Recommendations were made to remedy current deficiencies in the reports.

* * * * *

5

EJ294213
A Positive Response to an Important Proposal.
Educational Measurement: Issues and Practice, v2 n4 p33 Win 1983
Part of a series on "A Nation at Risk: Implications for Educational Measurement."

A response, by Carlson, to the National Commission on Excellence in Education's report proposes establishment of an independent agency. This entity, in conjunction with the National Assessment of Educational Progress, would define common content domains, develop calibrated normed item banks, and develop content referenced reporting systems.

* * * * *

6

EJ289525
What Makes a Text Coherent?
Bamberg, Betty
College Composition and Communication, v34 n4 p417-29 Dec 1983
Available From: UMI

Examines prevailing definitions of coherence in text. Cites writing samples from the National Assessment of Educational Progress to illustrate how coherence at the paragraph level must supersede coherence between sentences.

* * * * *

7

EJ289075
Matthew Effects in Education.
Walberg, Herbert J.; Tsai, Shiow-Ling
Educational Research Quarterly, v20 n3 p359-73 Fall 1983
Available From: UMI

The science achievement scores of 1,284 adults on a test of science knowledge were regressed on three composite independent variables: motivation, and prior and current educative experiences. Early educative experience predicts current activities of motivation; all three factors contribute to the prediction of achievement.

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8

EJ288746
The Third National Mathematics Assessment: Results and Implications for Elementary and Middle Schools.
Linquist, Mary Montgomery; And Others
Arithmetic Teacher, v31 n4 p14-19 Dec 1983
Available From: UMI

Results from the third national mathematics assessment are presented. Overall, the performance of nine year olds changed little since the second assessment, while significant gains were made by 13 year olds. Data on whole numbers, fractions and decimals, other basic concepts, and problem solving are discussed.

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9

EJ288735
Results of the Third NAEP Mathematics Assessment: Secondary School.
Carpenter, Thomas P.; And Others
Mathematics Teacher, v76 n9 p652-59 Dec 1983
Available From: UMI

Results from the third national mathematics assessment indicate that the decline in performance of 17 year olds between 1973 and 1978 has leveled out over the last four years, and 13 year olds' performance improved significantly between 1978 and 1982. However, most gains were or lower-order skills.

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10

EJ288099
NAEP: The Nation's Report Card.
Anrig, Gregory; Lapointe, Archie
Phi Delta Kappan, v65 n1 p52-54 Sep 1983
Available From: UMI

Now managed by the Educational Testing Service, the National Assessment of Educational Progress intends to generate current and reliable information on education; to communicate information in many different forms by various media; and to help educators, parents, legislators, and concerned citizens understand how to use that information.

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11

EJ284797
Mathematics Achievement and Attitude Productivity in Junior High School.
Tsai, Shiow-Ling; Walberg, Herbert J.
Journal of Educational Research, v76 n5 p267-72 May-Jun 1983
Available From: Reprint: UMI

Achievement test scores and ratings of 2,368 13-year-old students who participated in the 1977-78 National Assessment of Educational Progress were analyzed. Achievement was significantly associated with attitudes, sex, ethnicity, parents' education, verbal opportunities in the home, and frequency of mathematical practice.

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12

EJ283841
Federal Funds and State Interests: A Proposal for Governing the NAEP.
Doyle, Denis P.
Phi Delta Kappan, v64 n9 p642-45 May 1983
Available From: Reprint: UMI

Informational, diagnostic, prescriptive functions of National Assessment of Educational Progress (NAEP) are best served by governance structure composed of federal, state, and local members and a standing technical advisory board. Structure protects NAEP from undue federal influence and special interest groups, builds bridges to educators and students, and ensures technical quality.

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13

EJ283381
Educational Assessment, Standards, and Quality: Can We Have One Without the Others?
Tyler, Ralph W.
Educational Measurement: Issues and Practice, v2 n2 p14-15,21-23 Sum 1983

Following a review of educational standard-setting experiences in the United States, the procedures used by the National Assessment of Educational Progress (NAEP) to arrive at a consensus on educational objectives are described. These objectives represent the only definitions of educational quality that are widely accepted by professional and lay groups.

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14

EJ282124
How Is National Assessment of Educational Progress Used? Results of an Exploratory Study.
Sebring, Penny A.; Boruch, Robert F.
Educational Measurement: Issues and Practice, v2 n1 p16-20 Spr 1983

The utility of the federally funded National Assessment of Educational Progress (NAEP) is often unclear, and critics have claimed that NAEP is not used. This paper summarizes an exploratory study of evidence against these claims, including that data are most useful to audiences with a national perspective.

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15

EJ281756
Math Education—Does It Have the Right Stuff?
Raloff, Janet
Science News, v123 n22 p346-48 May 28 1983
Available From: Reprint: UMI

Results from the third national mathematics assessment indicate that scores on low-level skills did not decline from the previous assessment, but no improvement was found on applications items. Comments by Shirley Hill, past president of NCTM, and from a report from the National Academy of Sciences are included.

64

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16

EJ280030
Elementary Science Teachers—Take a Bow
Yager, Robert E.
Science and Children, v20 n7 p20-22 Apr 1983
Available From: Reprint: UMI

Highlights a 1982 follow-up study to the 1977 National Assessment of Educational Progress (NAEP) Third Assessment of Science. Results indicate that a majority of elementary school students had positive attitudes toward science and those who teach this subject.

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17

EJ278629
The Myth of Equality in Science Classrooms.
Kahle, Jane Butler; Lakes, Marsha K.
Journal of Research in Science Teaching, v20 n2 p131-40 Feb 1983
Available From: Reprint: UMI

National Assessment of Educational Progress data show that, by age 9, girls express interest but do not engage in as many science activities as boys. This continues through ages 13 and 17, paralleled by increasing negative views of science and science classes/careers. Suggestions to eliminate inequalities found are offered.

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18

EJ277135
Academic Gap Between High and Low Achievers Narrowing.
Chemical and Engineering News, v61 n9 p39-40 Feb 28 1983

Highlights a National Assessment of Educational Progress study indicating that in the 1970s academic gains in reading by some low achievers was offset by declines in science and math skills of high achievers. Additional results related to reading, science, and mathematics are also highlighted and discussed.

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19

EJ276091
National Assessment Findings in the Language Arts.
Brown, Rexford
English Journal, v72 n3 p106-09 Mar 1983
Available From: Reprint: UMI

Reports the results of the National Assessment of Educational Progress (NAEP) in the areas of reading, writing, and literature.

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20

EJ273473
Voluntary Activities in Science during Early Adolescence.
Walberg, Herbert J.; And Others
Science Education, v67 n1 p13-24 Jan 1983
Available From: Reprint: UMI

Operationalizes a psychological theory of productivity with data from a large sample of 13-year-old students administered eight items concerning voluntary science activities in the National Assessment of Educational Progress (NAEP). Discusses validity of model of the productivity theory and usefulness of secondary analyses of NAEP data.

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21

ED254823
Uses of NAEP in Reading by State Education Agencies.
Maring, Gerald H.
May 1983
10p.;
EDRS Price - MF01/PC01 Plus Postage.

Noting that use of the reading-related components of the National Assessment of Educational Progress (NAEP) by state education agencies has ranged from extensive to moderate to limited, this paper presents case studies of the ways in which states have used the NAEP models. The first half of the paper describes extensive use by Minnesota and Connecticut, moderate use by the state of Maine, and limited use by Wyoming and North Dakota. The second half of the paper discusses future uses of the NAEP methodology and materials and lists questions that state education agencies might want to ask when considering adaptation of NAEP reading components.

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22

ED244988
Trends in School Improvement: Statewide Test Results, 1978-1983.
Biester, Thomas W.; Dusewicz, Russell A.
Research for Better Schools, Inc., Philadelphia, Pa. Nov 1983
29p.
EDRS Price - MF01/PC02 Plus Postage.

This report presents an analysis and synthesis of student performance data collected through state-mandated testing programs. The common performance areas assessed were basic skills achievement. The unique performance areas assessed were content skills within a particular state. Achievement data from the National Assessment of Educational Progress (NAEP) were analyzed for a perspective on performance of students within Pennsylvania, New Jersey, and Delaware relative to national norms. Several conclusions were drawn: long term achievement trends are generally positive; programs are needed to improve upper level school performance; there is a decrease in positive long term trends as a student moves from the elementary to secondary level; higher order cognitive skills need to be emphasized as well as minimum basic skills; and improvement efforts need to be expanded by schools to maximize student performance in cognitive and affective achievement at all grade levels.

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23

ED242770
What Should Be Assessed in the Future: Theoretical Considerations from Research on Brain Function and from Research in Cognitive Science.
Bracey, Gerald W.
7 Jun 1983
15p.
EDRS Price - MF01/PC01 Plus Postage.

Reasons why there are few incentives for test publishers to make significant innovations in what is tested or how it is tested are given. A brief discussion of research on growth spurts in the brain, hemispheric differences, and other neurological phenomena is followed by a discussion of some conclusions drawn from this work. While skepticism is expressed over the great inferential chasms one must leap to arrive at some conclusions, hope is expressed that the field will ultimately prove fruitful in permitting more sensitive assessment of individual children. Recent studies in cognitive psychology are discussed and hope is expressed that these areas, too, will lead to improved assessment although their current relevance to practice is not great. Finally, some areas of investigation that are currently being ignored are mentioned as being potential sources of useful evaluation.

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24

ED241904
NAEP Literacy Data: Students Deficient in Using Language. Why?
Williamson, Leon E.
May 1983
153p.
EDRS Price - MF01/PC07 Plus Postage.

Concerned with what can be done to help produce more thoughtful, critical readers, this report first presents an historical overview of theories on the origin of language, referring to B. F. Skinner, Noam Chomsky, and Jean Piaget, among others. It then discusses biological reasons for the evolution of language and the impact of verbal language on human cognitive development, concluding that a major function of language is to deperceptualize--to create distance from one's immediate perception of reality with the help of previous experiences and knowledge. The report suggests that poets, philosophers, theologians, artists, and scientists have learned to harness the power of the brain through language. It then cites literacy data collected by the National Assessment of Educational Progress (NAEP) indicating that students during the 1970s were perceptually bound. The perceptual theories informing reading instruction, the report claims, did not promote students' abilities to analyze texts and thus deepen their understanding. After reviewing instructional strategies and reading models based on both perceptual and cognitive theories, the report concludes that reading is a process driven by language rather than by perception or intuitive cognition, and offers suggestions for increasing the language emphasis in reading instruction. An extensive bibliography is included in the report.

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25

ED237584
Improving the Mathematical Skills of Low Achievers. ERIC/CUE Fact Sheet Number 18.
Ascher, Carol
ERIC Clearinghouse on Urban Education, New York, N.Y. Sep 1983
4p.
EDRS Price - MF01/PC01 Plus Postage.

Poor, minority, and low ability students suffer most from the general lack of sustained opportunity to study mathematics in American public schools. Studies indicate that preschool and kindergarten students show only minor social class or racial differences in mathematical thinking and that differences in mathematical performance among older students directly relate to the amount of math studied. A 1978 National Assessment of Educational Progress study of selected 9-, 13-, and 17-year-olds indicates that while the majority of American 17-year-olds have had 2 years of high school mathematics, black students have had only one year. While the

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National Assessment found no racial differences in cognitive level performance in mathematics, blacks had increasing difficulty with mathematical content as they became older. At age 9, blacks showed problems with variables and relationships; by age 17, they showed problems in all mathematical content areas. Although black students showed more positive attitudes towards math learning than their white counterparts at all age levels tested, this motivation alone was not sufficient to insure successful math performance. The National Diffusion Network offers a catalog of successful public school mathematics education programs. Most effective programs have included the following elements: individualized and small group instruction, calculator usage, laboratory work, cross-age tutoring, remedial pull out, and team games.

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26

ED237069
Computer Literacy of California High School Seniors.
Fetler, Mark
California State Dept. of Education, Sacramento. 1983
57p.
EDRS Price - MF01 Plus Postage. PC Not Available from EDRS.

As a baseline measurement of what is being learned about computers in California, the skills, knowledge, attitudes, and experiences of a representative sample of 17,861 high school seniors was assessed in December 1982. Developed by a committee of experts in computer technology drawn from the public school system, universities, and industry, the test permitted reporting of scores for 30 distinct computer science and computer literacy objectives. Nearly all groups studied showed a low level of understanding of the basic concepts of computer technology. Students who reported substantial programming experience were exceptions, and demonstrated a higher level of knowledge. Comparison of results with those from an earlier survey by the National Assessment of Educational Progress showed considerable gains in awareness of computer technology over the last 5 years. Boys appeared to have more access to and experience with computers than girls. Both of these factors were associated with higher test scores. Students from families with more education tended to score higher than those from families with less education. This report includes 23 tables, 3 figures, and a list of computer literacy objectives for students.

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27

ED236687
Purpose and Audience in Writing: A Study of Uses of the Primary Trait System in Writing Instruction.
Holdzkom, David; And Others

CEMREL, Inc., St. Louis, Mo. Apr 1983
26p.
EDRS Price - MF01/PC02 Plus Postage.

The Primary Trait System (PTS) of scoring was devised by the National Assessment of Educational Progress to score large numbers of natural writing samples. Essentially, PTS permits evaluation of writing in an objective way, but one that does not rely on scoring surface features such as mechanics, grammar, or spelling. While the assessment value of PTS is clear, its instructional merits have remained largely unstudied. With this in mind, a study was conducted to describe the instructional uses made of the principles of PTS by 11 elementary and secondary school teachers. The teachers participated in a five-day workshop in which PTS was described theoretically. They also were given practice in using scoring guides related to PTS assignments and time to develop or adapt assignments of their own. Back in their classrooms, the teachers kept activity logs on the assignments they used. They also participated in two "booster" workshops during the period studied. The teachers used PTS in their classrooms in a variety of ways, including the following: (1) to clarify lesson objectives, (2) to provide a way to formulate assignments, (3) to help students evaluate and respond to the writing of peers, (4) to assess students' papers, and (5) to improve reading.

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28

ED236250
National Assessment Analysis Procedures.
Searls, Donald T., Ed.
Education Commission of the States, Denver, Colo. National Assessment of Educational Progress. Aug 1983
68p.
EDRS Price - MF01/PC03 Plus Postage.

The purpose of this paper is to provide an overview of the analysis of data collected by the National Assessment of Educational Progress (NAEP). In simplest terms, the analysis can be characterized as establishing baseline estimates of the percentages of young Americans possessing certain skills, knowledge, understandings, and attitudes and producing estimates of changes in these percentages over time. The baseline estimates permit comparisons of various subgroups. This paper begins with brief descriptions of key activities. The first sections generally describe the methods used to develop objectives and exercises, select the assessment sample, prepare material for the administration of an assessment, administer the booklets, and score the items. The later sections contain discussions about the NAEP analysis including computations used and potential secondary analyses. Appendices cover a variety of topics including adjustment procedures used in the analysis such as balancing and weight smoothing, methods for equating scores across booklets, and an approach for studying response patterns and bias. Primary typeof information provided by report: Procedures (Analysis) (Data Processing).

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29

ED236249

The Relationship of Students' Academic Achievement to Television Watching, Leisure Time Reading and Homework.

Ward, Barbara; And Others

Education Commission of the States, Denver, Colo. National Assessment of Educational Progress. Sep 1983

51p.

EDRS Price - MF01/PC03 Plus Postage.

To investigate the relationships between television watching, spare time reading, homework, and scholastic achievement, the National Assessment of Educational Progress gathered data on television viewing habits. Younger students were more avid viewers than older ones. Half the 9-year olds watched over 3 hours of television daily; most 13-year-olds watched one to two or three to four hours daily; among 17-year-olds, 38 percent watched less than an hour a day. Television has a differential relationship to reading achievement at different ages. Over 4 hours of daily watching proved detrimental at all ages. Highest reading performance was typically associated with one to two hours of spare time reading and three to four hours of television for 9-year-olds, one to two hours of television for 13-year-olds and under an hour of television for 17-year-olds. For 13-year-olds, one to two hours of television and one to two hours of homework a day were associated with highest levels of reading performance. Only for 17-year-olds did television have a direct negative relationship to reading performance. Spare time reading and television do not appear to compete for students' time; television and homework may compete for some students' time. Primary type of information provided by report: Procedures (Analysis).

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30

ED236248

Student Achievement in America: State Policy Implications for a High Technology Economy.

Anderson, Beverly L.; Ward, Barbara J.

Education Commission of the States, Denver, Colo. National Assessment of Educational Progress. Aug 1983

29p.

EDRS Price - MF01/PC02 Plus Postage.

Three aspects of the match between education and the demands of our changing economic situation are examined. First, the skills students will need for the future are identified. These skills included competencies in reading, writing, speaking and listening, mathematics, science, reasoning, basic employment, economics, and computer literacy. Second, current levels of achievement with respect to these skills are explored. The data are drawn from the results of the National Assessment of Educational Progress

(NAEP) in reading, mathematics, science, writing, literature, and consumer competencies. The overall NAEP findings were not particularly encouraging, especially for 17-year-olds. This paper concludes by making suggestions for correcting this mismatch between current achievement levels and necessary skills. It is recommended that educators first examine the lists of skills needed, determine which are appropriate for individual states or communities, and sort through those skills with business and industry leaders and parents. Then these groups should act in concert to remedy the problems they face. Primary type of information provided by report: Procedures (Analysis).

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31

ED236247
Citizenship and Social Studies Achievement of Young Americans: 1981-82 Performance and Changes between 1976 and 1982.
Education Commission of the States, Denver, Colo. National Assessment of Educational Progress. Oct 1983
35p.
EDRS Price - MF01/PC02 Plus Postage.

Between 1976 and 1982, teenagers improved their performance on citizenship/ social studies items measuring political knowledge and attitudes--13-year-olds by nearly three percentage points and 17-year-olds by about two percentage points. Results for the various population groups indicated that improvements tended to be greater for lower achieving and disadvantaged students than for groups typically considered more advantaged. When results were analyzed by different areas of political knowledge and attitudes, gains were most apparent on categories dealing with knowledge about government and the political process, while categories concerned largely with attitudes typically showed little change over the 6-year period spanned by the assessments. It is interesting to note that males and females performed about equally well on political knowledge and attitude items, with the exception of a sizable female advantage on items measuring respect for the rights of others. Blacks and disadvantaged-urban students were typically farthest below the nation on items dealing with knowledge about the structure and function of government and closest to national levels on items concerning respect for the rights of others. Primary type of information provided by report: Procedures (Overview); Results (Change).

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32

ED236205
The Academic Achievement of Young Americans. Fastback 196.
Ahmann, J. Stanley
Phi Delta Kappa Educational Foundation, Bloomington, Ind. 1983
45p.

EDRS Price - MF01 Plus Postage. PC Not Available from EDRS.

Data from the National Assessment of Educational Progress (NAEP) are reviewed to outline the achievement levels of students in the United States. This examination of NAEP data showing changes in levels of achievement during the 1970s leads to a number of conclusions. The overall picture for 9-year-olds is promising. The outlook for 13-year-olds, (with the possible exception of mathematics) is less encouraging, and that for 17-year-olds is quite disturbing. Despite these declines, repeated gains have been achieved by student groups that typically fall below the national average. A vexing problem that appears regularly is the uneven achievement in tasks requiring more than recall of information. This paper concludes with proposals for steps to be taken to improve higher-order learning. These steps are to be taken within the classrooms, within the schools, and within the communities.

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33

ED236186

Using Residual Analyses to Assess Item Response Model-Test Data Fit. Laboratory of Psychometric and Evaluative Research Report No. 140.

Murray, Linda N.; Hambleton, Ronald K.

Massachusetts Univ., Amherst. School of Education. Apr 1983

34p.

EDRS Price - MF01/PC02 Plus Postage.

The purpose of this research study was to assess item response model-test data fit using residuals. First, a comparison of raw and standardized residuals for describing model-test data fit was carried out. Second, hypotheses concerning the relationship between residual sizes and several item characteristics were studied. The analyses with residuals were carried out with NAEP mathematics test data using the one-, two-, and three-parameter logistic test models. The results from the investigation highlighted clearly the advantages of addressing the question of model-test data fit with residuals.

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34

ED236156

National Assessment of Educational Progress Reconsidered: A New Design for a New Era.

Messick, Samuel; And Others

National Assessment of Educational Progress, Princeton, NJ. Mar 1983

101p.

EDRS Price - MF01/PC05 Plus Postage.

This report presents the conceptual framework and major features of the new design for the National Assessment of Educational Progress (NAEP) as conducted by Educational Testing Service beginning July 1983. It comprises three major chapters. The first chapter reviews the social and environmental changes that demand reconsideration of NAEP. The new design was formulated to address concerns focusing on performance standards, school effectiveness questions, and broad human resource issues, thereby improving NAEP's relevance to educational policy and practice. The second chapter discusses technical innovations now possible with proven modern techniques that greatly enhance the power and value of the collected data. Sampling by grade as well as by age permits estimates of performance and trends to be reported by both age and grade, thereby allowing direct links to state and local assessments, school practices, and educational policies. The third chapter illustrates ways the new design addresses multiple policy questions, communication with multiple audiences in an effective fashion, linkages to other data sources, enhancement and extension of NAEP services, and engagement of the public on the important educational issue of performance standards. Primary type of information provided by the report: Program Description (Operating Policies); Procedures (Conceptual)

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35

ED235460
Vocabularies for Reading: How Large? What Kind?
Chall, Jeanne S.
May 1983
19p.
EDRS Price - MF01/PC01 Plus Postage.

Research has consistently shown that vocabulary knowledge, including both word recognition skills and understanding of word meaning, is highly predictive of achievement in other aspects of reading--oral and silent reading and comprehension. The importance of instruction in word recognition and decoding has been recently demonstrated by the rise in the National Assessment of Educational Progress reading scores of fourth grade students between 1970 and 1980. In addition to direct training, students also need exposure to challenging reading materials in order to develop effective vocabularies. Children from minority and low income families, especially, need both direct and contextual vocabulary instruction if they are to become good adult readers.

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36

ED234993
Images of Science. A Summary of Results from the 1981-82 National Assessment in Science. First Printing.
Hueftle, Stacey J.; And Others
Minnesota Univ., Minneapolis. Jun 1983
119p.

This report describes and interprets findings from a 1981-82 national assessment in science conducted by the Minnesota Science Assessment and Research Project (SARP). SARP tested 18,000 students randomly selected from across the nation. The assessment instruments included items on science content, inquiry, role of science and technology in society, and science attitudes. The current level of science achievement and attitudes toward science are reported and compared to results from the 1976-77 assessment. This is the first time that change results on science attitudes are reported. Data indicate that 9-year-olds have increased in achievement over the past 5 years, 13-year-olds have remained unchanged, and 17-year-olds have continued to decline. The attitudes of all three groups have dropped during the past 5 years. Findings are reported in three major parts: those for elementary, middle/junior high, and high school science respectively. In addition, findings are broken down by sex, sex by race, and by four geographic regions of the nation. The results are summarized in 64 figures and 54 tables. Three appendices are also included which provide cluster means and standard errors for possible secondary analysis.

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37

ED234352
How Well Can Students Read and Write? Issuegram 9.
Mullis, Ina V. S.; Mead, Nancy
Education Commission of the States, Denver, Colo. 3 Jan 1983
9p.
EDRS Price - MF01/PC01 Plus Postage.

The most recent National Assessment of Educational Progress (NAEP) reports suggest that the issue of declining quality in American education may be more complex than media accounts have portrayed it. If one looks at isolated communication skills, it appears that many students understand the fundamentals of reading and writing. The results also indicate that achievement levels have remained relatively stable across time for older students and may be improving for younger students. Although blacks and students in disadvantaged urban areas still tend to perform below national levels, in many instances they have either shown marked improvements or at least narrowed the gap between themselves and the rest of the nation. However, NAEP data suggest that curricula still emphasize instruction in competent skills apart from the "application" of these skills. Many students show difficulty with tasks requiring higher-order skills. Declines in inferential reading comprehension and in many writing tasks requiring critical thinking may reflect dwindling resources for teaching application and analytical skills. The results suggest that increased spending combined with placing instructional priority on the basics may have helped improve these skills, but the emphasis on the basics has not helped students develop higher order skills such as inference, analysis, or evaluation. Instructional priorities should be broadened to include higher level communication skills. Students need more time learning to read and write, and more time reading and writing to learn.

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38

ED234098
Student Performance Patterns Change.
Holmes, Barbara J.
Education Commission of the States, Denver, Colo.
State Education Leader, p13 Win 1983 1983
3p.
EDRS Price - MF01/PC01 Plus Postage.

The paper summarizes a National Assessment of Educational Progress (NAEP) report, "Reading, Science and Mathematic Trends: A Closer Look," in which achievement trends are compared in several subjects for 4th, 8th, and 11th grade black students, white students, low achievers, and high achievers. Findings indicate that while overall performance in mathematics and science declined, reading performance remained stable. Students in the lowest performance quartiles realized greater gains than did those in the highest quartiles. Although black students in both the lowest and highest quartiles showed more improvement in reading and mathematics than their white counterparts, all highest quartile 17-year-olds suffered substantial losses in mathematics and science. State boards of education and teacher training institutions might ensure higher achievement levels in science and mathematics by: (1) reviewing the relationship between teacher training and curricular needs in mathematics and science; (2) reconsidering current retention and remediation policies that separate students from their age/grade group for remediation; and (3) ensuring that the curriculum covers both low level and high level skills.

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39

ED234097
National Assessment of Education Progress, 1969-1983: A Bibliography of Documents in the ERIC Database.
Pratt, Theodore B., Ed.
Education Commission of the States, Denver, Colo. National Assessment of Educational Progress. Oct 1983
222p.
EDRS Price - MF01/PC09 Plus Postage.

During its first 14 years of existence, the National Assessment of Educational Progress (NAEP) was located at the Education Commission of the States (ECS). This annotated bibliography of 575 references lists all major publications by or about NAEP published between 1969 and 1983. References are in a classified arrangement, by specific or special assessment. Documents not dealing with a specific assessment are grouped by: Methodological Publications; Special Analyses; and General and Miscellaneous. Materials by NAEP are separated from materials about NAEP done by external organizations. Subject, Personal Author, and Preparing Institution indexes are provided. The compilation is based on materials (documents and journal articles) archived in the database of the Educational Resources Information Center (ERIC), and therefore most documents cited can be obtained through the ERIC Document Reproduction Service (EDRS).

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ED233966

Procedural Handbook: 1981-82 Mathematics and Citizenship/Social Studies Assessments.

Education Commission of the States, Denver, Colo. National Assessment of Educational Progress. Jul 1983

129p.

EDRS Price - MF01/PC06 Plus Postage.

Procedures for the National Assessment of Educational Progress (NAEP) assessments of 9-, 13-, and 17-year-old students in mathematics and citizenship/social studies are outlined. An overview of NAEP's operation is followed by descriptions of the formulation of mathematics and citizenship/social studies objectives, development and field testing of exercises, preparation of assessment materials, and data collection. Scoring of instruments is discussed in terms of quality control, training scorers, and characteristics of scoring in the specific subject areas. The discussion of data analysis focuses on exercise and group-level analysis, measurement of differences in performance over time, precautions for data analysis, and estimating variability in achievement measures. The remainder of the overview briefly covers background variables; data origins; characteristics of the respondent questionnaire, respondent data, school principal's questionnaire, and instructional program questionnaire; school and sampling records; and derived data. Appendices, which comprise more than half the document, include 15 sets of citizenship/social studies and mathematics background questions and instructional program questionnaires, background information and statistical tables on the method of reducing random variability of estimated population proportions, a glossary of NAEP terminology, and problems in inference due to the type of data and complications in analysis. Primary type of information provided by report: Procedures (overview).

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41

ED233965

Citizenship and Social Studies Released Exercises from the 1981-82 Assessment.

Education Commission of the States, Denver, Colo. National Assessment of Educational Progress. Jul 1983

283p.

EDRS Price - MF01/PC12 Plus Postage.

A series of exercises developed and used by the National Assessment of

Educational Progress (NAEP) focusing on citizenship and social studies objectives is provided. Every year since 1969, NAEP has gathered information about levels of educational attainments of 9-, 13-, and 17-year-olds and young adults (26-35) across the nation. Ten learning areas are assessed: art, career and occupational development, citizenship, literature, mathematics, music, reading, science, social studies, and writing. Measurement instruments are constructed from objectives devised by educators, scholars, and lay persons. This document primarily contains assessment instruments (released exercises) of NAEP's third citizenship/social studies assessment (1981-1982). Part 1 briefly explains NAEP's assessment procedures and describes the documentation provided for the various kinds of exercises in the set. Part 2 provides rationales for the questions assessing experience in political discussions and training reference resources, and part 3 discusses the taxonomic and content classifications used to develop and report on cognitive exercises. The remainder of the document contains the entire set of the experience exercises and about one-fourth of the cognitive exercises. The remainder of the cognitive exercises have not been released because they will be administered in the future. Primary type of information provided by the report: Assessment Instrument (Released Exercises).

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42

ED233878
National Assessment of Educational Progress: Mathematics. Released Exercises from the 1981-82 Assessment.
Education Commission of the States, Denver, Colo. National Assessment of Educational Progress. Jul 1983
290p.
EDRS Price - MF01/PC12 Plus Postage.

Exercises from the National Assessment of Educational Progress (NAEP) third mathematics assessment are provided in this released exercise set. Exercises were administered to 9-year-olds, 13-year-olds, and 17-year-olds. Some exercises were administered to only one age group, others to two or more age groups. The set is divided into two parts: text and appendices. Part 1 of the text briefly explains NAEP's assessment procedures and describes the documentation provided for the various kinds of exercises in the set. Part 2 describes rationales behind the development of attitudinal and experience questions. Part 3 describes the taxonomic and content classifications used to develop and report on cognitive exercises for the assessment. (Only about one-fourth of these exercises have been released since NAEP will readminister the others in the future to determine whether the performance level of young Americans has changed.) The remainder of the set consists of copies of the released exercises and documentation for each exercise. Documentation includes reference numbers, content/process objectives, timing/administration data for each group, and sorting guides for open-ended items. Attitudinal and experience exercises make up appendix A, followed by cognitive exercises in appendix B, and data for cognitive exercises in appendix C.

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43

ED232958
Achievement Trends in the Arts. Issuegram 2.
Ward, Barbara
Education Commission of the States, Denver, Colo. 3 Jan 1983
8p.
EDRS Price - MF01/PC01 Plus Postage.

During the 1970's, the National Assessment of Educational Progress (NAEP) conducted two assessments of art abilities (1974-75 and 1978-79) and two of music skills (1971-72 and 1978-79) of 9-, 13-, and 17-year-olds, giving a picture of trends in performance over the course of the decade. State assessments were also conducted by Connecticut and Minnesota for comparison to NAEP findings. Findings in music indicate that knowledge about the elements of music and musical notation have decreased, although a positive attitude toward music prevails. Findings in art indicate that although knowledge about art is low, performance does improve with age and number of classes taken. Students are less willing to accept nontraditional art, pursue artistic activities outside of school, or perceive art as important. State assessments in Minnesota and Connecticut indicate that Minnesota compares favorably over the nation in music achievement while Connecticut outperformed the nation in both music and art. Due to emphasis on back-to-basics, the arts are not being nurtured as they might be, and efforts should be made to ensure that achievement levels in art and music do not erode further by (1) promoting greater awareness of the importance of art to physical and national well-being; (2) encouraging a more sophisticated view of art; (3) allocating state recommended minimum amounts of time to art and music; (4) employing certified art and music teachers; and (5) encouraging student participation in artistic endeavors.

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44

ED231579
The Hispanic Population of the United States: An Overview. A Report Prepared for the Subcommittee on Census and Population. U.S. House of Representatives, 98th Congress, 1st Session. Committee Print 98-7.
Library of Congress, Washington, D.C. Congressional Research Service. 21 Apr 1983
201p.
EDRS Price - MF01 Plus Postage. PC Not Available from EDRS.

Utilizing census data primarily accumulated prior to the 1980 Census, the report provides a demographic profile of Hispanics in the United States. The 10 chapters examine and report findings in 4 key policy areas: education, employment, health; and housing. Information covers such topics as regional distribution of Hispanics; age; income; educational access and achievement; private and public elementary and high school enrollment; students' geographic location; postsecondary education enrollment;

language characteristics; the language barrier; the Bilingual Education Act; evaluation of Title VII (Elementary and Secondary Education Act); state efforts to improve educational access; state appropriations; the National Assessment of Educational Progress Study; American Institutes for Research (AIR) report; the Children's English and Services Study; Hispanic participation in the U.S. labor market; changes in the Hispanic labor force; relative unemployment; employment; occupational distribution; historical employment trends; employment problems (education, duration of and reasons for unemployment); access to and utilization of the health care system; and Hispanic housing (physical adequacy, affordability, tenure, location, displacement, and discrimination). Forty-one key court decisions in the four policy areas are reviewed, e.g., Lau v. Nichols, University of California Regents v. Bakke, Gomez v. Pima County, Espinoza v. Farah Manufacturing Co., Guerra v. Bexar County Hospital District, and Village of Arlington Heights v. Metropolitan Housing Department Corp.

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45

ED231066

Utah Educational Quality Indicators. The Fifth in the Report Series: How Good Are Utah Public Schools?

Nelson, David E.
Utah State Office of Education, Salt Lake City. Jan 1983
135p.
EDRS Price - MF01/PC06 Plus Postage.

This report, the fifth in a series assessing educational quality in Utah public schools, focuses on students' achievements and provides performance measures based on statewide results of various testing programs and special studies. The report presents three types of data relevant to major state board of education programs (such as Utah System-Wide Planning Commission recommendations): (1) student achievement and aptitude results from the American College Testing Program (ACT), Scholastic Aptitude Test, Preliminary Scholastic Aptitude Test, Utah Statewide Educational Assessment Program, Adult Performance Level Test, Advanced Placement Program, National Assessment of Educational Progress, and the International Education Study; (2) student biographical information, educational and vocational plans, out-of-class accomplishments, and student evaluations of their high school education from the ACT student profile; and (3) information from the U.S. census and a synopsis of Utah school accreditation activities. A final chapter summarizes findings and examines five areas of performance or implications and related sources of information: academic achievement, student characteristics, educational processes, key program thrusts and goals, and education in the 1980s and beyond. Statewide and national testing program results and special studies data are provided in 39 graphs and tables. An appendix provides Utah ACT scores and standard deviations between 1966 and 1982.

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46

ED230596
National Assessment of Educational Progress.
Education Commission of the States, Denver, Colo. National Assessment of Educational Progress. [1983]
28p.
EDRS Price - MF01/PC02 Plus Postage.

This brochure describes the mission of National Assessment, the highlights of recent findings, and the procedures used in gathering the data. It also outlines how the project is administered and governed and projects a framework for the development of upcoming assessments. The booklet includes a number of charts and graphs depicting achievement trends, dissemination of materials, and costs. Primary type of information provided by report: Program Description (Program Goals) (Progress Reports).

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47

ED230575
Productive Factors in School Learning: A Quantitative Synthesis of National Assessment Studies.
Borger, Jeanne B.; Walberg, Herbert J.
Apr 1983
34p.
EDRS Price - MF01/PC02 Plus Postage.

To integrate findings concerning the influence of productive factors on student achievement and attitudes across various disciplines and ages, nine regression studies of National Assessment of Educational Progress samples containing a total of 15,802 students were quantitatively synthesized. Correlations and standardized regression weights for achievement and attitude and nine productive factors were compiled for four subjects--math, science, social studies and reading,--and two age groups--13- and 17-year olds. The effects of student socioeconomic status (a proxy for ability) and motivation; amount and quality of instruction; school, home, and peer-group environments; and exposure to television, when controlled for one another and for race and gender, are generally significant and consistent across subjects and age for achievement and attitude outcomes. The over-all signs and apparent influences of each factor were positive except for television viewing which was negatively associated with achievement and attitude.

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48

ED230394
Mathematics Achievement and Attitude Productivity in Junior High School.
Tsai, Shiow-Ling; Walberg, Herbert J.
1983
19p.
EDRS Price - MF01/PC01 Plus Postage.

To investigate the dependence of mathematics achievement and attitudes on each other and other factors, achievement test scores and ratings of 2,368 13-year-old students who participated in the 1977-78 National Assessment of Education Progress (NAEP) were analyzed. Achievement was significantly associated with attitudes, sex, ethnicity, father's and mother's education, verbal opportunities in the home, and frequency of mathematical practices when the variables were statistically controlled for one another. Constructive mathematics attitudes were associated with achievement and the same factors except parent education. About 32 percent of the achievement variance and 8 percent of the attitude variance can be accounted for by the factors.

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49

ED229767
Improving Writing in California Schools: Problems & Solutions.
California State Dept. of Education, Sacramento. 1983
97p.
EDRS Price - MF01 Plus Postage. PC Not Available from EDRS.

Intended to help teachers, curriculum directors, school administrators, and school board members follow through on their commitment to teach students how to become better writers, the techniques and resources described in this booklet are arranged into seven chapters. The first chapter examines whether the "writing crisis" is fact or fiction, and discusses the test results from the National Assessment of Educational Progress and the California Survey of Basic Skills. The second chapter focuses on activities of the Bay Area Writing Project and other writing projects throughout the state of California. The third chapter deals with various approaches several California cities have taken, such as individualized language arts or the workshop/laboratory approach. Successful classroom techniques are detailed in the fourth chapter, among them using students as evaluators, choosing good topics, observing students as they write, prewriting, and motivating the student. Evaluation and assessment are the focus of the fifth chapter, which considers the types of tests available, types of scoring, evaluation in the classroom, and state or school district testing. The sixth chapter discusses what is known about writing, emphasizing grammar, prewriting, reading, oral language, sentence combining, and writing practice. The final chapter discusses the use of computers in writing, especially the use of the word processor and how it will shape the student as writer.

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50

ED229748

Television and Reading Achievement: A Secondary Analysis of Data from the 1979-80 National Assessment of Educational Progress.

Fetler, Mark
Apr 1983
37p.
EDRS Price - MF01/PC02 Plus Postage.

During the 1979-80 school year, the National Assessment of Educational Progress (NAEP) surveyed approximately 29,000 nine-year-old students regarding attitudes and achievement in reading and literature. Findings from this study were used for an analysis of the relationship between reading achievement and television viewing. The following background questions were selected for analysis: (1) How much television did you watch yesterday? (2) Is English the language spoken most often in your home? (3) Does your family get a newspaper regularly? (4) Are there more than 25 books in your home? (5) Is there an encyclopedia in your home? and (6) Did your father graduate from college or university? Results indicated that there was a curvilinear relationship between amount of viewing and achievement, in which moderate amounts of viewing were associated with higher achievement. There was a threshold amount of viewing (five or six hours per day) beyond which there were sharp decreases in achievement. This curvilinear relationship interacted with social class to result in a mainstreaming effect. That is, achievement of disadvantaged students increased more with moderate amounts of viewing and decreased less with large amounts than that of advantaged students. The consequence of this was a lessening of the differences in achievement between advantaged and disadvantaged students with greater amounts of viewing.

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51

ED229413

Ethnic Performance Trends on the Texas Assessment of Basic Skills Tests.

Texas Education Agency, Austin. Feb 1983
17p.
EDRS Price - MF01/PC01 Plus Postage.

The present study is one example of how statewide minimum competency testing programs can be used to examine minority student achievement trends. The results of 3 years of Texas Assessment of Basic Skills (TABS) test administration (1980-82) were examined for Black, Hispanic, and White students. The results were expected to be consistent with current National Assessment of Educational Progress (NAEP) trends such that: (1) Black students would improve their test scores at an increased rate relative to

White students, and (2) Hispanic students would also improve their test scores at an increased rate relative to Whites. The average number of objectives mastered at the third and fifth grade level, and percentage of ninth grade students achieving total test mastery, was calculated for Black, Hispanic, and White student performance in mathematics and reading for all years of testing. Black, Hispanic, and White students all demonstrated improved performance across 3 years of testing. Black students increased their rate of improvement relative to Hispanics, and at the third and fifth grade level, began to surpass Hispanic reading performance. Low Hispanic performance was most evident in regions without major urban centers experiencing significant immigration from Mexico.

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52

ED228306
Techniques for Detecting Student Errors: An Investigation with a Reading Test.
Harnisch, Delwyn L.; Torres, Rosalie T.
Apr 1983
31p.
EDRS Price - MF01/PC02 Plus Postage.

An index identifying factors leading to unusual response patterns by students, the modified caution index, was computed for the reading comprehension and study skills items of Booklet 5 from the 1979 National Assessment of Educational Progress (NAEP) reading achievement survey given to the 9-, 13- and 17-year-old samples. The analyses focused on reporting student and school variables associated with unusual response patterns (high modified caution indices). The findings were compared to the results of a similar study which examined 13-year-olds' performance on the 1978 NAEP mathematics survey. Taken together, these studies provide a description of the relationship between the characteristics of students and their response patterns to a selection of items used to survey mathematics and reading performance levels in the United States. This description helps to illustrate how response pattern analyses conducted within local school settings can be used to identify individual students inadequately prepared for test material, as well as groups of students (classrooms) for whom content coverage was not consistent with specified instructional objectives.

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53

ED228060
Achievement in Mathematics and Science. Issuegram 6.
Ward, Barbara
Education Commission of the States, Denver, Colo. Jan 1983
9p.

EDRS Price - MF01/PC01 Plus Postage.
This brief report highlights findings from the two assessments in mathematics and three assessments in science conducted by the National Assessment of Educational Progress between 1969 and 1978. In mathematics, average scores declined during the mid-1970s, especially on problem solving. In science, students generally declined in knowledge, skills, and understanding, especially in physical science. These and other results cited have been interpreted as not boding well for the future eminence of the United States in science and mathematics. Key influences were noted, including the emphasis on back-to-basics and the tendency to short-change problem-solving skills; the emphasis on testing of skills, with attention focused on those easily tested; the shortage of qualified teachers; lowered levels of support; and the relaxation of college entrance requirements. Necessary steps to be taken are listed, and a brief list of references is included.

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54

ED228049
The Third National Mathematics Assessment: Results, Trends and Issues. 1981-82 Assessment Advance Copy.
Education Commission of the States, Denver, Colo. National Assessment of Educational Progress. Apr 1983
77p.
EDRS Price - MF01/PC04 Plus Postage.
This report describes and interprets findings from the 1981-82 national mathematics assessment, the third such assessment conducted by the National Assessment of Educational Progress. The results show a leveling off of the performance of American 17-year-olds, who had shown a decline between 1978 and 1982; 9-year-olds' performance has changed little from assessment to assessment. These findings are described and interpreted by a panel of mathematics educators. Besides discussing the overall results, the authors examine findings in the following categories: knowledge, skills and concepts; problem solving, applications and attitudes toward mathematics; computers and technology; minorities and mathematics; and sex differences in achievement. Findings are presented for different kinds of test items--those assessing knowledge, skills, understanding, and application--and for different subpopulations: Blacks; Hispanics; students in heavily minority schools, students in different achievement categories, males, females and students in advantaged-urban, disadvantaged-urban and rural schools. The report contains an executive summary and, in the appendixes, some discussion of other test results and other information about mathematics education, mathematics course taking, and steps being taken across the country to improve science and mathematics education.

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55

EJ320192
Have National Assessments Made Us Any Wiser about 'Standards'?
Wood, Robert; Power, Colin
Comparative Education, v20 n3 p307-21 1984

An analysis of national programs for monitoring student achievement in Australia, the United Kingdom, and the United States finds that "national assessment" promotes a view of "standards" which is narrow, limiting, and definitely not conducive to the emergence of flexible and imaginative educational policies designed to cope with the future.

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56

EJ317857
Literacy: Trends and Explanations.
Chall, Jeanne S.
American Education, v20 n9 p16-22 Nov 1984
Available From: UMI

The author focuses on literacy among students--those still in school or recently graduated. She discusses literacy trends among elementary, high school, and college students; uses of literacy trends; results of a 1980 National Assessment of Educational Progress study; developmental changes in individuals; and reading disability, dyslexia, and learning disabilities.

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57

EJ314327
National Assessment: A Review of Programs in Australia, the United Kingdom, and the United States.
Power, Colin; Wood, Robert
Comparative Education Review, v28 n3 p355-77 Aug 1984
Available From: UMI

An analysis of national programs for monitoring student achievement in the United States, the United Kingdom, and Australia found that political considerations in all three countries have inhibited the clarification of program objectives and the implementation of the technology required to generate meaningful information capable of reliable analysis and interpretation.

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58

EJ309421
The Potential and Real Achievement of U.S. Students in School Reading.
Purves, Alan C.
American Journal of Education, v93 n1 p82-106 Nov 1984
Available from: UMI

Focuses on reading in the school domain and concludes that achievement in reading results from a combination of maturation, exposure, and instruction. Assesses the limits an successes of the instruction of reading in the U.S. and makes cross-national comparisons.

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59

EJ307767
A Comparative Study of Selected Black and White University Sophomore Students on a Required Reading Test.
Kenney, James B.; Anderson, Harry E., Jr.
Journal of Experimental Education, v53 n1 p20-28 Fall 1984

1982-83 Georgia Regents' Testing Program reading subtest scores and five aptitude/achievement variables of 256 Black and 3009 White Georgia University sophomores were compared. Classification analysis showed White students scored higher. Results were compared to the National Assessment of Education Program findings.

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60

EJ307380
What Research Says: What's Happening in Elementary Science: A National Assessment.
Rakow, Steven J.
Science and Children, v22 n2 p39-40 Oct 1984
Available From: UMI

Presents results of a study which examined science achievement, attitudes, sex differences, and racial differences among nine-year-olds. Also compares these results to those from three previous National Assessment of Educational Progress studies. Implications for elementary school science instruction are included.

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61

EJ307352

Student Achievement in Science: A Comparison of National Assessment Results.

Rakow, Steven J.; And Others

Science Education, v68 n5 p571-78 Oct 1984

Available From: UMI

Students' understanding of basic science concepts (with particular emphasis on the interaction of science and society) was measured during a 1981-82 national assessment. These results are compared to those obtained from the Third Science Assessment (1977) to determine how students' knowledge has changed during the past five years.

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62

EJ306019

Reading Achievement and Diminishing Returns to Time.

Walberg, Herbert J.; Tsai, Shiow-ling

Journal of Educational Psychology, v76 n3 p442-51 Jun 1984

Available From: UMI

To probe the association of reading achievement with factors in learning, the scores of 2,890 13-year-old students from a National Assessment of Educational Progress sample were regressed on 24 indexes of the factors, singly and as a set. Achievement showed diminishing or eventually negative returns to eight time variables.

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63

EJ305911

Delimiting the Problem of Generalizability of Research Results: An Example from a Trend Study of a Citizenship Education Project.

Napier, John D.; Grant, Evelyn T.

Theory and Research in Social Education, v12 n3 p17-34 Fall 1984

Available From: UMI

How social studies researchers can use National Assessment of Educational Progress Public Use Data File tapes to delimit the problem of generalizability of research results is described. An example using data from a trend study of a citizenship education project is used to demonstrate the procedure.

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64

EJ305888
A Study of the Relationship between Concept Emphasis in High School Biology Textbooks and Achievement Levels.
Cho, Hee-Hyung; Kahle, Jane Butler
Journal of Research in Science Teaching, v21 n7 p725-33 Oct 1984
Available From: UMI

This study demonstrated a direct relationship between achievement level (measured by responses to biological items on the 1977 National Assessment of Educational Progress's science survey) and concept emphasis in biology textbooks. In addition, recommendations of Project Synthesis were not found in newer biology textbooks. Other findings are reported and discussed.

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65

EJ305318
Assessing Coherence: A Reanalysis of Essays Written for the National Assessment of Educational Progress, 1969-1979.
Bamberg, Betty
Research in the Teaching of English, v18 n3 p305-19 Oct 1984
Available From: UMI

Describes a study that developed a valid method of assessing coherence based on current linguistic theory and discourse analysis that was then used to reanalyze the "Describe" essays written by 13- and 17-year-old students for the 1969, 1973-74, and 1978-79 NAEP assessments.

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66

EJ304974
Solving Arithmetic Word Problems: Role of Reading and Computational Skills.
Muth, K. Denise
Journal of Educational Psychology, v76 n2 p205-10 Apr 1984
Portions of this article were presented at the Annual Meeting of the American Psychological Association (Washington, DC, August 1982).
Available From: UMI

This study added extraneous information and increased syntactical complexity to determine the relative importance of computational and reading abilities in solving arithmetic word problems. Analyzing tests of 200 sixth graders indicated the combined abilities accounted for 54 percent of the variance in solution accuracy.

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67

EJ304484
Computer Evaluation Cometh: Accountability Promises Questions, Not Answers, about Kids and Computers.
Watt, Dan
Popular Computing, v3 n9 p91-92,94 Jul 1984
Available From: UMI

Discusses the need for researchers to determine what should be tested and how when evaluating educational computing programs, describes efforts of Educational Testing Service's National Assessment of Educational Progress (NAEP) to measure the impact of computers on achievement, and concludes that it will not be easy to evaluate computers' effects.

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68

EJ300642
What Art Teachers Are Not Teaching, Art Students Are Not Learning.
Zimmerman, Enid
Art Education, v37 n4 p12-15 Jul 1984
Available From: UMI

A review of reports, a survey, and national assessments of art education shows that visual art students are not learning art knowledge and skills because art teachers do not teach art appreciation, art history, or design and drawing skills. Priorities concerning art education content and teaching methods must be changed.

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69

EJ300152
Achievement in Mathematics: Results from the National Assessment.
Carpenter, Thomas P.; And Others
Elementary School Journal, v84 n5 p485-95 May 1984
Available From: UMI

Conclusions about the performance of 9-, 13-, and 17-year-old students on mathematics exercises are reported and illustrated with exercises from the 1973, 1978, and 1982 National Assessment of Educational Progress. (RH)
Descriptors: *Academic Achievement; *Basic Skills; Blacks; Elementary Secondary Education; Hispanic Americans; Longitudinal Studies; *Mathematics; *Minority Groups; *Problem Solving; Sex Differences; *Student Improvement; Whites

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70

EJ299508
A New Perspective on Math and Science Education.
Rotberg, Iris C.
Phi Delta Kappan, v65 n10 p668-73 Jun 1984
Available From: UMI

Summarizes findings of the National Assessment of Educational Progress (NAEP) on reading, mathematics, science, writing, high and low achievers, race, types of schools, and geographic regions and affirms the potential of American education to solve its own problems with government assistance at the federal level.

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71

EJ298938
Age of Admission and Trends in Achievement: A Comparison of Blacks and Caucasians.
Langer, Philip; And Others
American Educational Research Journal, v21 n1 p61-78 Spr 1984

This study investigated the changing achievement relationships among Black and White students based on ages at entry into first grade. The data indicated that, for both groups, the significantly higher achievement of the oldest students at age 9 disappeared by age 17.

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72

EJ298823
Achievement and Interest as Functions of Quality and Level of Instruction.
Horn, Elizabeth A.; Walberg, Herbert J.
Journal of Educational Research, v77 n4 p227-32 Mar-Apr 1984

A National Assessment of Educational Progress study was conducted on students to assess the dependence of high school mathematics learning on the amount and level of course work as well as other productive factors. Achievement appears to depend on number and level of courses, traditional teaching methods, home environment, and ethnicity.

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73

EJ297516

Writing Assessment in Connecticut: A Holistic Eye toward Identification and an Analytic Eye toward Instruction.

Baron, Joan Boykoff

Educational Measurement: Issues and Practice, v3 n1 p27-28,38 Spr 1984

Part of a series entitled, "The Application of Direct Writing Assessments in Five States."

The Connecticut Assessment of Educational Progress assesses writing traits using different approaches to diagnose students' skills. These include multiple choice, direct assessment, "revising test," dictation, and note-taking. These measures and scoring guides are used to assess several elements of good writing.

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74

EJ297511

Scoring Direct Writing Assessments: What Are the Alternatives?

Mullis, Ina V.S.

Educational Measurement: Issues and Practice, v3 n1 p16-18 Spr 1984

Scoring systems for direct writing assessment are described. In holistic scoring, a global quality judgment of the writing sample is made. Primary trait scoring, developed by the National Assessment of Educational Progress, is conducted in accordance with specific goals. Analytic scoring identifies characteristics and quality of writing. These scoring systems may be used in combination.

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75

EJ297312

What Students Say about Science Teaching and Science Teachers.

Yager, Robert E.; Penick, John E.

Science Education, v68 n2 p143-52 Apr 1984

Available From: UMI

Affective item findings from two national assessments (N=2500 for 1977 assessment; N=2000 for 1983 assessment) are reported and compared. Areas examined include attitudes toward teaching procedures, action of science teachers, current science teacher, and science class. Lists of characteristics of exemplary programs and behaviors of exemplary teachers are included.

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76

EJ295803
The Third National Assessment: Minorities and Mathematics.
Matthews, Westina; And Others
Journal for Research in Mathematics Education, v15 n2 p165-71 Mar 1984
Available From: UMI

Data from the 1982 National Assessment of Educational Progress in mathematics are analyzed. Black and Hispanic students continued to score below the national level, but made greater gains than White students since the previous assessment. Students in schools with heavy minority enrollments made greater-than-average gains.

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77

EJ295802
Monitoring the Mathematics Achievement of Black Students.
Jones, Lyle V.; And Others
Journal for Research in Mathematics Education, v15 n2 p154-64 Mar 1984
Available From: UMI

Findings from the National Assessment of Educational Progress in mathematics for 1973 and 1978 are reviewed. The differences between means of Black and White students are analyzed and discussed.

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78

EJ293158
Reading: Ave Atque Vale.
Donovan, Ann
Educational Leadership, v41 n5 p86-89 Feb 1984
Available From: UMI

Although basic literacy will continue to be necessary for survival, mass communications and information technology are bringing about an inevitable and lamentable decline in reading for pleasure and in the love of literature for its own sake.

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79

ED279722
NAEP Findings at Your Fingertips. Research in Brief.
National Inst. of Education (ED), Washington, DC. Apr 1984
3p.
EDRS Price - MF01/PC01 Plus Postage.

This brief article presents some of the facts and figures learned from the National Assessment of Educational Progress (NAEP). NAEP is an on-going nationwide survey to determine what America's students are learning. It is conducted by the Educational Testing Service, and, at the time this article was written, was funded by the National Institute of Education (NIE). Since 1969, when NAEP began, more than 1 million 9-, 13-, and 17-year-olds have been tested in 10 different subject areas, including reading, writing, math, and science. The test results give the nation an idea of what its students know or do not know, and what they can or cannot do. NAEP contains a wealth of information which can be of help to educators. In an effort to make these findings available to more individuals, NIE developed an easy-to-use computer program dubbed National Assessment of Educational Progress Information Retrieval System (NAEPIRS). This program offers educators an opportunity to see how their schools are performing compared to others across the country. The program requires an IBM personal computer and a NAEPIRS diskette. (Instructions for obtaining the diskette are included in this brief.)

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80

ED274701
Trends in School Improvement: State-Wide Test Results, 1978-1984.
Kenney, Jane L.; Dusewicz, Russell A.
Research for Better Schools, Inc., Philadelphia, Pa. Nov 1984
40p.
EDRS Price - MF01/PC02 Plus Postage.

This report on trends in school improvement test results presents an analysis and synthesis of 1978-1984 student performance data from four state-mandated testing programs: (1) the Educational Quality Assessment Program in Pennsylvania; (2) the Minimum Basic Skills Program in New Jersey; (3) the Delaware Educational Assessment Program in Delaware; and (4) the California Achievement Tests in Maryland. Although the overall goal of each state program is assessing performance related to designated learning objectives, the programs vary widely in basic content and analytic approach. The assessment analyzed performance data at the elementary, intermediate, and secondary levels of schooling, focusing on year-to-year trends. The analysis had two major components: (1) assessment of the common performance areas of reading and mathematics; and (2) the assessment of unique performance areas which addressed content skills only with a particular state (self-esteem, understanding others, writing, interest in school, social responsibility, knowledge of law and government, health, creativity, career awareness, appreciating human accomplishments, and knowledge of human accomplishments, in Pennsylvania; spelling and language, in Delaware; and language, in Maryland). The findings suggest that student achievement performance trends in the four state regions are generally positive and consistent with results of the National Assessment of Educational Progress. Long term trends tend to be most positive at the elementary level and decrease at the intermediate and secondary levels, suggesting that more attention be given to school improvement programs aimed at secondary education.

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81

ED259328
Black Student Writers, Storks, and Familiar Places: What Can We Learn from the National Assessment of Educational Progress?
Smitherman, Geneva; Wright, Sandra
Nov 1984
33p.
EDRS Price - MF01/PC02 Plus Postage.

Using data consisting of descriptive and expressive-narrative essays written in 1969 and 1979 by black 17-year-old students in the stratified probability sample from the National Assessment of Educational Progress (NAEP), a study investigated which language patterns differentiated the NAEP essays written by black students in 1969 from those written in 1979. Narrative essays were scored using the primary trait technique while the descriptive essays were scored by using the holistic scoring technique. The total number of T-units and the total number of words were also tabulated for each essay. The distribution of black English forms was arrived at by the standard sociolinguistic procedure of calculating the ratio of actual to potential occurrences of black English. The data suggest that the performance by black students in narrative writing from 1969 to 1979 was influenced by a combination of the following factors: (1) a decrease in the use of black English features, (2) a decrease in the number of words, (3) the use of a scoring criteria based upon explicit features relative to the type of discourse, and (4) the assignment of a topic conducive to field dependent cognitive skills. Because these variables had an opposite effect upon the descriptive essays, writing performance did not improve.

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82

ED254543
Bringing the Future Into Focus.
National Assessment of Educational Progress, Princeton, NJ. [1984
28p.
EDRS Price - MF01/PC02 Plus Postage.

This report describes the National Assessment of Educational Progress (NAEP), a project designed to keep parents, school officials, and policy makers abreast of the educational realities. Information is collected and reported at regular intervals concerning the knowledge, skills, and attitudes of elementary and secondary school students. NAEP has developed educational objectives based upon the consensus of concerned citizens. Exercises written to fit these objectives are evaluated by educators before being administered to students. The results of each assessment are published, and total results are summarized to indicate the relative performance of specific groups. By regular monitoring of students' progress, NAEP is able to determine developing trends and potential problems. Information about young adults, ages 21 to 25, is also being compiled by NAEP, which reports useful information not only to the federal government but also to the individual states.

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83

ED250146
Recapturing the Lead in Math and Science. Focus 14.
Benderson, Albert
Educational Testing Service, Princeton, N.J.
Focus, v14 1984 1984
29p.
EDRS Price - MF01/PC02 Plus Postage.

This document examines various topics and issues related to the quality of science and mathematics education in the United States. They include: (1) competition from Japan and the Soviet Union; (2) federal programs and legislation designed to improve the quality of science and mathematics education; (3) scientific literacy; (4) the basics in mathematics education, outlining those recommended in the National Council of Teachers of Mathematics report, "An Agenda for Action" and discussing the importance of problem-solving skills and real-world mathematical applications; (5) science and pseudoscience, examining the scientific method and the Creationist threat; (6) National Assessment of Educational Progress science and mathematics achievement data; (7) exemplary mathematics programs and the criteria for excellence in these programs (including the development of thinking skills); (8) exemplary science programs; (9) science and mathematics teacher shortage; and (10) the restructuring of American values and attitudes toward learning for science and mathematics.

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84

ED249256
Methodological Considerations When Using the 1979-80 Reading/Literature Public Use Tapes: Data Analysis, Identification of Traits, and Construction of Scales from NAEP Items.
McGuire, Dennis P.
Apr 1984
40p.
EDRS Price - MF01/PC02 Plus Postage.

Efficient methods of using the Statistical Package for the Social Sciences (SPSS) to analyze National Assessment of Educational Progress (NAEP) data files are discussed. One error in the NAEP SPSS file is discussed, and another error (which may be system-dependent) is mentioned. In addition, purely mathematical methods are used to address the questions of whether there is evidence for the existence of four hypothesized traits (Words and Phrases, Lexical Relationships, Propositional Relationships, and Textual Relationships). Further, the question of estimating reliability of a new set of items gathered from different NAEP booklets is addressed. It is concluded that the current data do not support the thesis that these traits are distinct, although there is some evidence that Words & Phrases and Lexical Relationships are distinct. It is further concluded that the reliability of new sets of items cannot be safely estimated at this time.

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85

ED249129
Music and Music Education: Data and Information. National Data Review.
Steinel, Daniel V., Comp.
Music Educators National Conference, Reston, Va. 1984
86p.
EDRS Price - MF01 Plus Postage. PC Not Available from EDRS.

Statistical information to help educators assess information needs and trends in music and art education is presented. The first of five sections contains information on occupational conditions. Charts and graphs depict occupational distribution and average annual salaries of recent bachelor's degree recipients, certification in the field of music education, elementary and secondary teaching status of recent bachelor's degree recipients qualified to teach art and music, teacher layoffs and shortages in public and private school art education, relative demand for teachers by teaching area and year, and relative supply and demand of teachers by field and geographic region. Section 2 contains five charts depicting associate, bachelor's, master's, and doctoral degrees conferred in selected art fields. Section 3 consists of charts and graphs showing results of the National Assessment of Educational Progress in art and music and the Scholastic Aptitude Test. Section 4 focuses on participation in the arts. Charts and graphs in this section cover data on student participation in art, student extracurricular art and music activity, public involvement with the schools, and adult education courses. The final section presents data on attitudes and opinions on music hobbies and music-related activities and school coursework. Appendices contain information sources and error estimation tables. An index is included.

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86

ED248268
Evaluating a Computer Education Program Qualitatively and Quantitatively.
Lai, Morris K.
Apr 1984
18p.
EDRS Price - MF01/PC01 Plus Postage.

This quantitative/qualitative evaluation of an 80-hour course integrating the SCOPE Computer Program in Mathematics and Science into the curriculum for students, grades 6-12, was conducted to: (1) provide immediate feedback to facilitate improvement of the program; (2) determine course effects; and (3) provide practitioners with an effective method of evaluating microcomputer use in educational settings. Careful evaluations of programs involving computer instruction and education are needed for progress in computer literacy and computer integration into the core curriculum. Data were collected from the 370 participating students, 13 instructors, eight lab assistants, and four program coordinators using pretests, interim feedback forms, posttests, and 40 hours of evaluator observation data. National Assessment of Educational Progress items were part of the test battery. Results showed gains in computer programming skills, mathematical problem-solving, and attitude toward computers. Sex differences were found in cognitive gain, use of computer labs, and discipline. Teacher training was part of the program. The appendix contains the "Formative Evaluation Feedback-SCOPE Session I," designed to assist personnel continuing to conduct the program. Findings and recommendations concerning student behavior, physical facilities, field trips, parent day/parent communication, the curriculum, and instructional strategies are presented. In addition, some unsystematic observations and conclusions are offered.

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87

ED247239
Issues and Answers: What Will NAEP Tell Us?
Mullis, Ina V. S.
Apr 1984
17p.
EDRS Price - MF01/PC01 Plus Postage.

The National Assessment of Educational Progress (NAEP) approach to developing assessments is described. NAEP will solicit views concerning assessment objectives and use the consensus approach. NAEP results can impact educational policy and school and classroom practices. Several policies have been adopted to provide improved information about specific subject area achievement. Subject areas will be selected to address issues of national concern and information needs. Each biennial assessment will include four subject areas. Subject area assessments will be more closely integrated and related and will include reading. Innovative item development will be assured through adoption of several policies. Each subject area assessment will contain open ended items and assessment of higher order reasoning skills will be emphasized. Assessment results will be more useful to a variety of audiences as a result of NAEP adoption of new policies. An increased scope of student level and school level background information will be collected. The collection of background information about teachers that can be directly related to student achievement has been initiated. Types of information may be classified as program related variables, impact of policies and practices, effect of teaching strategies and school curricular policies related to specific subject areas, and equal learning opportunity.

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88

ED246753
Measuring Educational Progress in the South: Student Achievement.
Cornett, Lynn; And Others
Southern Regional Education Board, Atlanta, Ga. 1984
48p.
EDRS Price - MF01/PC02 Plus Postage.

Information on the achievement of students in Southern States is presented, based on the National Assessment of Educational Progress (NAEP). State profiles are presented for 12 Southern Regional Education Board (SREB) states, plus Maryland and Texas. A 1984-1985 SREB pilot project with the National Assessment of Educational Progress is also outlined. The key features of the existing state student assessment programs are reviewed, based on information from the state departments of education. The profiles of the state student assessment programs cover results of state-developed criterion-referenced tests for 1982 and/or 1983, nationally-normed tests, trend data in student achievement, and high school graduation examinations results (for some states). Information is also provided on the assessment of intellectual development and career and personal development for first-time college students, continuing students, and graduating students. It is noted that the SREB pilot program provides state benchmark data as well as national comparisons on reading achievement for 11th grade students. Profiles are provided for the following states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

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89

ED245293
Large Scale Assessment of Oral Communication Skills: Kindergarten through Grade 12.
Rubin, Donald L.; Mead, Nancy A.
ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill.;
Speech Communication Association, Annandale, Va. 1984
130p.
EDRS Price - MF01/PC06 Plus Postage.

Intended for teachers and administrators who wish to assess student oral communication needs before designing an appropriate program, this guide provides a review of tests for measuring acts of speaking and listening. The guide surveys and discusses procedures for assessing speaking and listening skills among school children and focuses on technical issues of measurement and pragmatic questions of administrative feasibility. The first section provides a review and critique of procedures for assessing oral communication skills. The second section reviews 45 oral communication assessment instruments, including the California Achievement Test for Listening, Comprehensive Test of Basic Skills, Metropolitan Achievement Tests, and the National Assessment of Educational Progress Pilot Test of Speaking and Listening. Appendixes contain standards for effective oral communication programs, and criteria for evaluating instruments and procedures for assessing speaking and listening.

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90

ED244992
Pennsylvania's Public School Students: Caught in the Tide?
Miller, Leann R.
Jan 1984
9p.
EDRS Price - MF01/PC01 Plus Postage.

State and national data were used to examine whether Pennsylvania students are part of a national trend of decreasing higher achievers' scores and declining higher order skills. Data from the National Assessment of Educational Progress (NAEP) reports and the Pennsylvania Educational Quality Assessment (EQA) were examined. Analysis indicated that Pennsylvania students' mathematics and writing skills were at the highest point ever. Problem solving skills remained stable. Although the state's students reported more writing activity than students nationally, Pennsylvania schools should consider an increase in the amount of writing required of students to improve their writing performance. A decline in analytic, interpretive, and evaluative skills in literature assessment was found. Recommendations are made to overcome these skill deficiences. Results are analyzed for items measuring student time spent on out-of-school pursuits including reading, television viewing, and homework. The author concludes that, although some school programs in Pennsylvania are not as rigorous or demanding as they could be, the state's educational program is adequate. She suggests more careful study of the needs of each program before implementing changes.

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91

ED244592
Computer Literacy in California Schools.
Fetler, Mark
California State Dept. of Education, Sacramento. Feb 1984
43p.
EDRS Price - MF01/PC02 Plus Postage.

An assessment was conducted in 1983 of the skills, knowledge, attitudes, and experiences of California sixth and twelfth grade students in the area of computer technology. Cognitive test questions were written to conform to a set of objectives used in the Department of Defense Dependents Schools (DoDDS) curriculum; attitude questions were obtained from the National Assessment of Educational Progress; and background questions were designed to assess relevant prior knowledge of and experience with computers. The questionnaire was administered to approximately 23,400 twelfth grade and

293,700 sixth grade students. Boys reported having more experience with computers than girls did, and this experience was associated with higher test scores. Nearly all groups studied showed a low level of understanding of the basic concepts of computer technology. A majority of students did exhibit awareness of certain basic concepts and hold positive attitudes towards computers. Even so, substantial percentages of students subscribed to various common misconceptions about computers. Students with parents having more education, or who worked professionally, had higher test scores than students with parents who had less education or who did unskilled work. A 10-item bibliography and a list of DoDDS student objectives related to computer literacy are provided. Supporting tables and graphs are appended.

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92

ED244279
Let's Not "Write a Report."
Nordberg, Beverly
Apr 1984
20p.
EDRS Price - MF01/PC01 Plus Postage.

In the traditional classroom, written reports assigned to students are generally returned as poorly written, reworded collections of facts taken from single sources. Cross-curriculum writing is a way of circumventing this and encouraging learning and thought development by the student. Writing is usually considered a communication skill, but recent research is establishing a link between the writing process and the use of cognitive skills that aid in thinking, like distinguishing relevant material and arranging data and assertions in patterns. In part, this notion derives from England's Bullock Report, which surveyed student work and isolated two important dimensions of writing--a sense of audience and function. In the United States, the Third National Assessment of Educational Progress found that students were unable to interpret what they read past a superficial level, and had serious problems with various writing tasks. The teaching implications of these findings are varied and wide, and extend from prewriting--or examining a wide variety of resources--to breaking down composition into manageable steps, to selecting a real or imaginary audience to foster confidence. In subject areas like social studies, methods of inquiry can be stressed, while in science, writing as a tool for organizing and evaluating a body of knowledge can be emphasized.

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93

ED243944
Danger: Work on Higher Levels.
Lapointe, Archie E.
25 Apr 1984
13p.
EDRS Price - MF01/PC01 Plus Postage.

The Assessment Policy Committee of the National Assessment of Educational Progress (NAEP) has directed the NAEP staff to focus the 1985-86 Assessments of Reading, Mathematics, Science, and Computer Competence on the higher-order skills. Each Learning Area Committee worked independently developing three-dimensional models. These defined what could be known (a single-step cognitive process), what could be used (two cognitive steps), and what could be synthesized and applied to new situations (three or more steps). While it was decided to exploit the discoveries of modern cognitive theory, every attempt will be made to define categories so that references back to the Bloom taxonomy used in the last two assessments will be possible. The statements of learning objectives that were hammered out by each Committee are currently being reviewed by scores of experts, teachers, and lay people. When this step is complete, each Learning Area Committee will be reconvened to finalize the objectives.

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94

ED243785
Girls in School/Women in Science: A Synopsis.
Kahle, Jane Butler
1984
16p.
EDRS Price - MF01/PC01 Plus Postage.

Research from sociology, science education, mathematics education, and psychology, as well as data from the National Assessment of Educational Progress (NAEP) indicate some of the causes of and potential solutions for sex inequities in science education. NAEP has indicated that 13- and 17-year-old girls have strong negative attitudes toward science and have little belief that the discipline can be useful to them. Research suggests that social factors (role models and sex stereotypes), educational factors (enrollment patterns, adult expectations, and class activities), and personal factors (spatial visualization) all contribute to this negative attitude. Possible remedies include adaptation of teaching strategies to female student needs, use of experiments that would enhance girls' spatial abilities, and incorporation of structured lab work. A national study has identified 10 teaching factors that affect retention of girls in science, including attractive classrooms, nonsexist teacher-developed materials, teacher awareness of sexism, and teacher encouragement of extracurricular activities.

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95

ED243086
Reading Objectives, 1983-84 Assessment.
National Assessment of Educational Progress, Princeton, NJ. 1984
15p.
EDRS Price - MF01/PC01 Plus Postage.

The reading objectives presented in this booklet are the most recent in a series that has included one set of combined reading and literature objectives, two sets of reading objectives, and two sets of literature objectives. As presented in the booklet, the objectives reflect the interactions of reader, text, and process rather than definitions of discrete units that can be directly translated into observable behaviors. The four objectives discussed are that the student: (1) comprehend what is read; (2) extend comprehension; (3) manage the reading experience; and (4) value reading. The final section of the booklet discusses the development of the objectives and provides a list of subject matter specialists, teachers, school administrators, researchers, parents, and members of the public who contributed to their formulation.

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96

EJ330335
The Status of Hispanic American Students in Science: Attitudes.
Walker, Constance L.; Rakow, Steven J.
Hispanic Journal of Behavioral Sciences, v7 n3 p225-45 Sep 1985
Available From: UMI

Examines attitudes toward science classes and teachers; science as a career; and value of science among elementary, junior and senior high Hispanic students in participating National Assessment of Educational Progress schools over three years. Compares attitudes of White and Black students. Results show increase in positive attitudes of minority students.

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97

EJ329034

Response to Changing Assessment Needs: Redesign of the National Assessment of Educational Progress.

Messick, Samuel

American Journal of Education, v94 n1 p90-105 Nov 1985

Describes the new design for the National Assessment of Educational Progress. Changes include a biennial schedule, expanded sampling, and balanced—incomplete spiralling of exercises and variables to permit the estimation of intercorrelations. Changes should improve the interpretability, comparability, timeliness, and policy relevance of the data.

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98

EJ329011

Are There Gender Differences in Reading Achievement? An Investigation Using the High School and Beyond Data.

Hogrebe, Mark C.; And Others

Journal of Educational Psychology, v77 n6 p716-24 Dec 1985

Available From: UMI

The major purpose of this study was to investigate the relation of gender to reading achievement at the high school level. Findings suggest that by the time students reach high school, the magnitude of gender differences in reading achievement as assessed by the High School and Beyond survey is small.

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99

EJ328966

On "State Education Statistics."

Wainer, Howard; And Others

Journal of Educational Statistics, v10 n4 p293-325 Win 1985

In this paper, scores from the Department of Education's table, "State Education Statistics," are examined to see if they can be used for state-by-state comparisons to aid in the evaluation of educational policies that vary across states.

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100

EJ328963
Achievement in Consumer Mathematics among Japanese Technical High School Students—A Comparison with NAEP Data.
Akagi, Aiwa; And Others
Evaluation in Education: An International Review Series, v9 n3 p253-76
1985

Technical high school students in Japan were given a test of consumer mathematics and items from the National Assessment of Educational Progress (NAEP). Expectations of students' scores were predicted by their teachers and by corporate employers. Scores were quite high and were higher than comparative NAEP data.

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101

EJ327983
ECS at 20: New Vitality and New Possibilities.
Layton, Donald H.
Phi Delta Kappan, v67 n4 p272-76 Dec 1985
Available From: UMI

Reviews the first twenty years of the Education Commission of the States, covering aspects of organization, administration, and activities (including the operation of the National Assessment of Educational Progress from 1969 to 1983). Describes recent changes in the commission's organization and focus, and considers changing expectations for the coming years.

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102

EJ327440
Progress toward Standards as Standards for Progress: A Potential Role for NAEP.
Messick, Samuel
Educational Measurement: Issues and Practice, v4 n4 p16-19 Win 1985

The National Assessment of Educational Progress incorporates key elements of a responsible standard-setting process: (1) choice of educational objective; (2) description of current group performance ranges and trends; and (3) the identification of educational contexts differentially related to performance. NAEP results can direct public values toward quality standards in education.

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103

EJ325449
The National Writing Project: Literacy and Teaching.
Myers, Miles
National Forum: Phi Kappa Phi Journal, v65 n4 p32-34 Fall 1985
Available From: UMI

The National Writing Project (NWP) became a key institution in the effort to define a new level of minimum literacy. There is an increasing awareness of the importance of writing as an aid to thinking in all subject areas. The NWP staff development model is described.

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104

EJ323513
The Relationship of Students' Reading Skills to TV Watching, Leisure Time Reading, and Homework.
Searls, Donald T.; And Others
Journal of Reading, v29 n2 p158-62 Nov 1985
Available From: UMI

Examines data from the 1979-80 National Assessment of Reading that reveals that television as external stimulation is beneficial to some groups of students yet detrimental to others.

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105

EJ323364
Writing Quality, Coherence, and Cohesion.
McCulley, George A.
Research in the Teaching of English, v19 n3 p269-82 Oct 1985
Available From: UMI

Using a random sample of 493 persuasive papers written by 17-year-olds during the 1978-79 National Assessment of Educational Progress writing evaluation, a study investigated the relationships among features of textual cohesion and primary trait assessments of writing quality and coherence, with manuscript length held statistically constant.

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106

EJ321803
Effective Teaching, Student Engagement in Classroom Activities, and Sex -Related Differences in Learning Mathematics.
Peterson, Penelope L.; Fennema, Elizabeth
American Educational Research Journal, v22 n3 p309-35 Fall 1985
Available From: UMI

Classroom activities related to the mathematics achievement level of students in 36 fourth-grade mathematics classes were identified. Engagement in competitive mathematics activities, cooperative mathematics activities, social activities, and off-task behavior was consistently and differentially related to girls' versus boys' low-level and high-level mathematics achievement.

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107

EJ318843
Social Studies Achievement of Rural Youth: A Review of the Literature.
Easton, Stanley E.
Small School Forum, v6 n2 p9-11 Win 198 1985
Available From: UMI

Children and youth in rural American communities generally learn social studies/citizenship knowledge, skills, and attitudes from a variety of sources and to about the same extent as their nonrural counterparts. Although rural schools as a class are well within the educational mainstream, learning opportunities in rural schools vary widely.

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108

EJ317661
State Testing and the Educational Measurement Community: Friends or Foes?
Anderson, Beverly L.
Educational Measurement: Issues and Practice, v4 n2 p22-26 Sum 1985

The steady growth of state testing programs and its implications for the measurement community are discussed in terms of testing purposes (monitoring, accountability, and curriculum advancement) and test development, administration, and reporting. It is important that the measurement community address crucial issues to maintain its substantial role in state educational improvement.

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109

EJ317448

Relationship Between Affective Determinants and Achievement in Science for Seventeen-Year-Olds.

Napier, John D.; Riley, Joseph P.

Journal of Research in Science Teaching, v22 n4 p365-83 Apr 1985

Available From: UMI

Data collected in the 1976-1977 National Assessment of Educational Progress survey of 17-year-olds was used to reanalyze the hypothesis that there are affective determinants of science achievement. Results show that motivation, anxiety, student choice, and teacher support account for most of the correlation between affective determinants and achievement.

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110

EJ317446

Changes in Perceptions of Science for Third, Seventh, and Eleventh Grade Students.

Yager, Robert E.; Yager, Stuart O.

Journal of Research in Science Teaching, v22 n4 p347-58 Apr 1985

Available From: UMI

Results from studies dealing with students' views toward science teachers/ classes, usefulness of science study, and what it is like to be a scientist are reviewed and analyzed. Studies include National Assessment of Educational Progress data and data from an Iowa follow-up study and a study of a large school district.

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111

EJ316700

Academic Achievement of Historically Lower-Achieving Students during the Seventies.

Forbes, Roy H.

Phi Delta Kappan, v66 n8 p542-44 Apr 1985

Available From: UMI

Data generated through the National Assessment of Educational Progress's regular and special reading assessments during the 1970s indicate that the reading performance of historically lower-achieving students has risen considerably. Unfortunately, the significance of the data has not been fully explored by the news media.

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112

EJ316161
The National Assessment of Educational Progress Information Retrieval System (NAEPIRS), Version 1.15 (Computer Program). Review .
Brzezinski, Evelyn J.
Journal of Educational Measurement, v22 n1 p73-76 Spr 1985
Available From: UMI

The National Assessment of Educational Progress Information Retrieval System is a single purpose database program. It is well constructed, runs without problems, and serves as a model for dissemination of research and evaluation study results. The program seems more useful as an index to documents than as an independent database.

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113

EJ315939
National and Legislative View: Education Beyond 1984.
McCurdy, Donald W.
Journal of College Science Teaching, v14 n4 p426-27 Mar-Apr 1985
Available From: UMI

Conclusions from Project Synthesis (analysis of National Science Foundation programs of 1960-70s and results of three National Assessment of Educational Progress data) are presented. Implications for college science teaching include the need for high motivation materials for nonscience majors, government support for inservice training and certification revisions.

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114

EJ314558
Correlates of Reading Achievement and Attitude: A National Assessment Study.
Walberg, Herbert J.; Tsai, Shiow-Ling
Journal of Educational Research, v78 n3 p159-67 Jan-Feb 1985

Reading achievement and attitude scores of a National Assessment of

Educational Progress sample of 9-year-old students were multiply regressed on one another on home environment variables. Correlations and partial correlations of achievement with home environment, quality of instruction, and leisure time television watching were found.

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115

ED272571

National Statistics to Improve Educational Productivity.

Walberg, Herbert J.
[Oct 1985]
27p.
EDRS Price - MF01/PC02 Plus Postage.

The value of statistical research depends on valid comparisons which can usefully influence educational policy. Educational research needs to extend the measures of learning (such as the National Assessment of Educational Progress) through nationally-calibrated absolute measures and through computer-assisted and adaptive testing. Direct sampling by computer would make educational polls and national assessment faster and less expensive. A national bureau of educational standards might be founded to collect, coordinate, calibrate, archive, analyze, synthesize, and make available the data that is needed to improve educational productivity. Nine factors promoting efficiency and productivity of learning are classified in three broad categories: (1) student aptitude, including ability, development, and motivation; (2) instruction, including amount of time students engage in learning and quality of instructional experience; and (3) environmental factors, such as home climate, classroom social group, peer group, and television viewing. The tables in the appendix illustrate the effect of productivity factors on achievement revealed by quantitative syntheses carried out by a number of investigators in Australia, Canada and the United States during the past decade.

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116

ED272560

The Elementary/Secondary Redesign Project: Assessing the Condition of Education in the Next Decade.

Peterson, Penelope L.
[Oct 1985]
17p.
EDRS Price - MF01/PC01 Plus Postage.

To assess the condition of American education in the next decade, the

National Center for Education Statistics (NCES) should focus on collecting data in the following major areas: (1) the quality and quantity of time that is allocated to various activities in the classroom; (2) the concerns of teachers, including their working conditions and time spent on various activities; and (3) micro-computer usage in the schools and student engaged time in activities broken down by content of activity and by sex, race, and socioeconomic status of the user. The relevance, technical quality and utility of the data could be improved by collaborating with other large organizations, such as several of the Educational Research and Development Centers that will soon be funded by the National Institute of Education (NIE). NCES might collaborate with the following Centers: (1) NIE Center on Teacher Quality and Effectiveness to gather data from the teachers' perspective on working conditions and factors that affect teachers' decisions; (2) NIE Center on Student Testing, Evaluation, and Standards to develop and refine tests that measure higher level cognitive skills; and (3) NIE Centers on Effective Elementary Schools and Effective Secondary Schools to collect time and observational data on what students are actually doing and learning in classrooms.

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117

ED272557
Priorities for Federal Education Statistics.
Murnane, Richard J.
Jun 1985
26p.
EDRS Price - MF01/PC02 Plus Postage.

The paper suggests priorities for the federal government's elementary and secondary education data collection efforts. Sections on outputs, inputs, and private schools describe what data is needed, what is already available, and what is recommended for data collection. Recommendations include a high priority for federal funding for the National Assessment of Educational Progress (NAEP). Scholastic Aptitude Test (SAT) and American College Test (ACT) scores should be published by state alongside an adjusted set of scores that takes into account the influences of participation rates, family income and private school attendance. International Association for Evaluation of Education Achievement cross-national test comparisons should receive continued financial support. A uniform method for calculating dropout rates should be implemented. Datasets are needed that provide detailed information on children's schooling as well as information on post-schooling careers and income paths. Data on teaching should be collected, including: (1) an annual comparison of salaries in teaching with those of other occupations; (2) information on SAT scores of college graduates entering teaching; and (3) teacher mobility patterns. Data on capital account expenditures should be examined in regard to use and cost. Data should be collected on private and for-profit schools.

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118

ED272541

Issues in National Educational Data Collection.

Cronin, Joseph M.

National Center for Education Statistics (ED), Washington, DC. Oct 1985

14p.

EDRS Price - MF01/PC01 Plus Postage.

In redesigning the data program of the National Center for Education Statistics (NCES), there is a need for standard definitions, constant vigilance against redundancy and excessive data collection, audits and verification on local school data and continued attention to equity results as well as excellence and achievement. Major test scores, such as those obtained from the American College Testing Program and the Scholastic Aptitude Test should not be used to compare and contrast state achievement, since these tests were not designed for that purpose. The limits of the test instruments should appear in publications dealing with results of such tests. The following principles are suggested to guide NCES in data collection activity: (1) the data should be useful to federal, state and local policymakers or decision-makers; (2) the amount of data and number indicators should be limited to that which can be stored and analyzed within three months and reported to policymakers within the year; and (3) data should be drawn from sample rather than total populations. The National Assessment of Educational Progress is federally funded, and one option for including state assessments is to add funds to the contract. Two of the major concerns would be: (1) the cost of the expanded survey; and (2) timeliness of the reports.

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119

ED272539

Monitoring the Condition of Education.

Buccino, Alphonse

[Oct 1985

12p.

EDRS Price - MF01/PC01 Plus Postage.

Five categories of data collection are recommended for monitoring the quality of education: (1) outcomes, based on an input-output model, including data from student testing and credentials and degrees; (2)

participation--who is served by education; (3) resources available to education; (4) long-term impact of education on work, income, self-esteem, and the society; and (5) purposes--needs of and expectations for the education enterprise. It is suggested that the following data sets be collected by the National Center for Education Statistics (NCES): student achievement, such as the National Assessment of Educational Progress and state comparisons; course enrollment; teacher quality and teacher supply and demand; and curriculum content. Additional comments are made suggesting the usefulness of further research on international comparisons; informal, out-of-school education; technology; data compatibility; and data interpretation. Although this paper sets forth criteria for monitoring the educational system, it is also recommended that the more difficult task of establishing standards be performed, to measure the degree to which criteria are met.

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120

ED271662
Gender Differences in Mathematics Attitudes and Achievement.
McConeghy, Janet I.
8 Nov 1985
50p.
EDRS Price - MF01/PC02 Plus Postage.

An analysis was conducted of two large samples of 13- and 17-year-old students (N=7,928) who were assessed by the National Assessment of Educational Progress during the 1977-78 and 1981-82 mathematics assessments. A group of 18 statements about math were used to construct a math attitude index. A multivariate log-linear analysis included gender, assessment year, and age as independent variables and the math attitude index as the dependent variable. The results revealed that all three independent variables made significant contributions to the final model. A five-way analysis of variance was done using the dependent variable of math achievement score and the independent variables of math attitude index, race, gender, type of community, and racial composition of the school. The results of this analysis showed that math achievement was significantly affected by each of the independent variables. There were also three significant two-way interactions identified: (1) type of community and racial composition of the school; (2) math attitude index and racial composition of the school; and (3) math attitude index and gender. These findings suggest that while gender differences do exist in both attitudes toward math and achievement in math, these differences are less than the differences in the other variables examined. Additional multivariate studies should be done to examine this issue further.

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121

ED270735
Reading: A "Top Ten" Activity.
Gutknecht, Bruce
5 Nov 1985
12p.
EDRS Price - MF01/PC01 Plus Postage.

A review of National Assessment of Educational Progress findings presents a picture of the reading attitudes of a large segment of the American population, and of the relationship between reading attitudes and reading performance. The findings show that a negative attitude toward reading exists, and that it increases with each year spent in school. High reading performance, on the other hand, appears to be related to a positive attitude toward reading, kindergarten attendance, homework being assigned and completed, and higher levels of parental education. Many students have problems with reading that contribute to their negative feelings toward reading, such as a lack of comprehension skills. Poorly given reading assignments also contribute to students' negative reading attitudes. Teachers can help students find some worth and value in reading, thereby improving their attitude toward reading, by (1) involving students in only meaningful learning activities, (2) making accommodation for the varied ability levels of the students, (3) using written materials in the same way as any other instructional materials, and (4) avoiding the problems students have in comprehension.

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122

ED268483
National Assessment of Educational Progress Reading Proficiency Catholic School Results and National Averages. 1983-84 Final Report.
Lee, Valerie
National Catholic Educational Association, Washington, D.C. 1985
39p.
EDRS Price - MF01/PC02 Plus Postage.

Intended to enable Catholic educators to evaluate the reading progress of their students compared to the nation as a whole, this report presents reading achievement data for nearly 6,000 Catholic school students out of 20,000 students in grades 4, 8, and 11, assessed in 1983-84 by the National Assessment of Educational Progress (NAEP). The findings are divided into three sections. Each section presents comparisons of Catholic school student performance with the respective national average and focuses on the following characteristics: (1) findings that compare students by subgroupings related to family background and social status; (2) findings that relate to characteristics of the schools (e.g., their locations and certain information about their curricula); and (3) findings that relate to behaviors associated with academic performance (i.e., homework, television watching, student grades, and some course-enrollment information for 11th graders).

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123

ED268142

Student Achievement in Illinois: An Analysis of Student Progress. Third Annual Illinois Student Achievement Report.

Illinois State Board of Education, Springfield. Jun 1985
109p.
EDRS Price - MF01/PC05 Plus Postage.

This third annual report on student achievement in Illinois continues the State Board of Education practice of providing a synthesis of a variety of achievement measures. Test results used for this report come from: (1) Illinois Inventory of Educational Progress (IIEP); (2) Scholastic Aptitude Test (SAT); (3) National Assessment of Educational Progress; (4) American College Test; (5) Decade Study Test; and (6) Second International Mathematics Study. Data collected regarding student performance in mathematics showed that although the achievement of Illinois students is at the national average, the nation as a whole compares unfavorably with other countries. Science scores for Illinois students were at the national average, and the IIEP (used only in Illinois) showed improvement in grades four, eight, and eleven. Reading achievement scores indicated that no great movement took place, although fourth, eighth and eleventh grades showed a slight drop. Across all curricular areas was the concern that students were not performing well on test items requiring higher order thinking skills (analysis, synthesis, evaluation, and problem-solving). Student factors most important in explaining performance levels were student expectations/standards of performance, number of relevant courses taken, and parental influences. School size was the strongest single influence among school factors and performance was higher in high schools with more than 215 students. The report provides support for at least four major reforms: (1) establishment of learner outcomes at the state and local levels; (2) need for a statewide assessment process; (3) reorganization and/or consolidation of small high schools; and (4) state initiative for early childhood education to increase levels of achievement. A brief list of references and related readings is included.

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124

ED267101

Measuring Student Achievement: Comparable Test Results for Participating Southern States, the South, and the Nation.

Southern Regional Education Board, Atlanta, Ga. 1985
17p.
EDRS Price - MF01/PC01 Plus Postage.

Southern Regional Education Board (SREB) states were invited in June 1984 to participate in a project with the National Assessment of Educational Progress (NAEP) to assess the reading achievement of eleventh grade students. Florida, Tennessee and Virginia accepted and worked with SREB and NAEP staff to develop and administer the testing program. Administered in April 1985, the project findings provided the participating states with a current and reliable measure of how their students' reading achievement compares with national and regional results, and for the first time they have comparable data on how their students' achievement compares with students' achievement in other states. A summary of score comparisons of the reading assessment are provided for eleventh grade students in the nation and in the NAEP Southeastern region (excluding the SREB states of Maryland, Oklahoma and Texas). The national and regional averages include students in public and private schools, while the participating SREB states included only public school students. The state comparisons are made to the national and regional testing administered in Spring 1984. The SREB/NAEP project also included a "background and attitudes" survey of students which is available from the individual states.

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125

ED266966
Science Indicators from National Assessment and Other Sources. National Assessment of Educational Progress. Part 2: Analysis of National Assessment Results and Related Data. Final Report.
Hilton, Thomas L.; And Others
Educational Testing Service, Princeton, N.J. Oct 1985
57p.
EDRS Price - MF01/PC03 Plus Postage.

This study investigated ways of making present and past results of the National Assessment of Educational Progress (NAEP) and other data sources maximally useful as science indicators and to recommend possible changes in instrumentation and procedures that may enhance future NAEP surveys for these purposes. Primary emphasis was given to reviewing published and unpublished reports that have resulted from the national assessment and the frequent special data collections which have also resulted from it, as well as on integrating the findings into tables and text of special relevance to the 1984 edition of "Science Indicators." In addition, the report files and test score files of the National Teacher Examinations (NTE) were examined for similar evidence and results that may confirm or disconfirm the NAEP results. Other data sources (such as the Educational Testing Service Advanced Placement Program) were also examined. Results and recommendations are reported and discussed separately for national assessment, national teacher examinations, advanced placement scores, and for other data sources. One recommendation (related to NAEP) is that all scales purporting to measuring the same concept should be on a common scale. Among the findings is that the NTE data filed proved to be of limited value as a source of science indicators.

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126

ED266156

Using State Test Data for National Indicators of Education Quality: A Feasibility Study. Final Report.

Burstein, Leigh; And Others

California Univ., Los Angeles. Center for the Study of Evaluation. Nov 1985 275p.

EDRS Price - MF01/PC11 Plus Postage.

The desire for a national picture of educational quality remains a continuing but unresolved goal. A question has been raised among high level policymakers regarding the feasibility of using existing data collected by the states to construct education indicators for state-by-state comparisons of student performance at the national level. A feasibility study was contracted to the UCLA Center for the Study of Evaluation (CSE) to explore the methodological and implementation issues of this approach. The results of the feasibility study are described and discussed in this report. Included in the study are analyses of: (1) the general characteristics of current state testing programs and of the content of currently used state tests; (2) alternative approaches to linking test results across states to create a common scale for purposes of comparison; and (3) the availability of auxiliary information about students and schools and its potential use in creating more valid indicators of achievement. These analyses culminated in a number of recommendations about ways to facilitate the use of state data for national comparisons. These recommendations focus on basic preconditions, proposed approaches, pilot study needs, auxiliary information collection and documentation, and strategies for optimizing political, institutional, and economic support.

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127

ED265208

The Test Score Decline Is Over: A Reinterpretation.

Stedman, Lawrence C.; Kaestle, Carl F.

Wisconsin Center for Education Research, Madison. Oct 1985 35p.

EDRS Price - MF01/PC02 Plus Postage.

Recent test results reveal that the test score decline has ended, but the legacy of this highly publicized educational episode continues. One widespread interpretation of the decline and recovery is that permissiveness and a collapse of standards in the late 1960s led to the decline and that a return to the basics and to tougher standards caused the turnaround. This paper argues that the causes of test score decline are still uncertain; that schools' standards and programs in the late 1960s probably had less to do with test score decline than is commonly believed; and that although the recent turnaround in test scores may have been the result of schools' renewed emphasis on the skills included on standardized tests, there are risks in teaching to test, in advocating a return to "the basics," and in believing that the central instructional problems of schools today will be remedied by rehabilitating the nation's average scores on standardized tests.

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128

ED264550

The Reading Report Card: Progress Toward Excellence in Our Schools. Trends in Reading over Four National Assessments, 1971-1984. Report No. 15-R-01.

National Assessment of Educational Progress, Princeton, NJ. 1985
75p.
EDRS Price - MF01/PC03 Plus Postage.

Focusing on trends in reading achievement during the period from 1970 to 1984, this report draws from national assessments that involved more than 250, 000 9-, 13-, and 17-year-old students from a wide range of socioeconomic backgrounds. The first chapter (1) provides an overview of the report; (2) summarizes recent achievements documented by the surveys, including improvements in reading made by Black, Hispanic and disadvantaged students; (3) lists areas in which more improvement is needed; and (4) cites other trends revealed by the data. The findings include: (1) the reading proficiency of males has trailed that of females in all four reading assessments; (2) the gaps between the regions of the country have narrowed considerably due primarily to improvements in the Southeastern region (except for that region's 9-year-olds); (3) the influence of home environment is apparent in that students from homes with an abundance of reading materials are substantially better readers than those with few materials available and students whose parents have post-high school education read substantially better than those whose parents have not graduated from high school; (4) six or more hours of TV viewing per day is consistently and strongly related to lower reading proficiency; and (5) students who receive homework and do it tend to read better than students who do not have homework or do not do it. The major portion of the second chapter offers brief descriptions of the five levels of proficiency defined by the reading tasks used in the surveys and gives data showing the number of students in each age group who attained each level. The third chapter examines the data to discover exactly who has been improving, providing figures for Black, Hispanic, and White students, for males and females, and for students in different types of communities and in different regions. The fourth chapter looks at influences on reading proficiency, including parents' level of education, reading materials in the home, the effects of television, and homework. Appendixes contain descriptions of procedures used in the National Assessment of Educational Progress (NAEP) reading assessments and extensive tables of data.

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129

ED263193
Profiles of Literacy. An Assessment of Young Adults.
National Assessment of Educational Progress, Princeton, NJ. [1985
13p.
EDRS Price - MF01/PC01 Plus Postage.

The National Assessment of Educational Progress (NAEP) has acted to provide a new perspective with its 1985 survey of the literacy skills of young Americans aged 21-25. In the spring of 1985, NAEP began screening 40,000 households to identify a nationally representative sample of between 3,600 and 5,000 young adults aged 21-25 and several hundred out-of-school 17-year-olds. (An oversampling of Black and Hispanic young adults will permit NAEP to deliver reliable reports on those groups.) We can fully appreciate the conditions of literacy among young adults in our society only when we survey their proficiency at various tasks along with the characteristics of the backgrounds and the environments in which they live. NAEP staff members will gather information on the background and demographic characteristics of young adults. A second phase of the study involves the measurement of "core" skills, and a third phase includes simulation tasks to draw a profile of literacy skills or an oral language interview. Findings of the study will have implications for economic development, educational programs, and practical programs to improve literacy.

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130

ED263192
NAEP Profiles of Literacy. An Assessment of Young Adults. Development Plan, April 1985.
Kirsch, Irwin
National Assessment of Educational Progress, Princeton, NJ. Apr 1985
22p.
EDRS Price - MF01/PC01 Plus Postage.

The National Assessment of Educational Progress (NAEP) has acted to provide a new perspective with its 1985 survey of the literacy skills of young Americans aged 21-25. In the Spring of 1985, NAEP began screening 40,000 households to identify a nationally representative sample of between 3,600 and 5,000 young adults aged 21-25 and several hundred out-of-school 17-year-olds. (An oversampling of Black and Hispanic young adults will premit NAEP to deliver reliable reports on those groups.) We can fully appreciate the conditions of literacy among young adults in our society only when we survey their proficiency at various tasks along with the characteristics of the backgrounds and the environments in which they live. NAEP staff members will gather information on the background and demographic characteristics of young adults. A second phase of the study involves the measurement of "core" skills, and a third phase includes simulation tasks resulting in a profile of literacy skills or an oral language interview. Findings of the study will have implications for economic development, educational programs, and practical programs to improve literacy.

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131

ED262946

Update on the Citizenship and Social Studies Achievement of Rural 13-Year-Olds.

Easton, Stanley E.; Ellerbruch, Lawrence W.
Jul 1985
16p.
DRS Price - MF01/PC01 Plus Postage.

Data provided by the 1981-82 National Assessment of Educational Progress (NAEP) were used to study the citizenship and social studies achievement of rural 13-year-olds. The NAEP extreme rural sample included 901 13-year-olds from schools in areas with less than 10,000 people and many farmers or farm workers in residence. School size in this sample ranged from 115 to 1,013 students. The 13-year-olds from the extreme rural communities performed slightly below the national levels for their age group on all five of the citizenship/social studies objectives. By comparison, 13-year-olds in " disadvantaged-urban" communities, where a relatively high proportion of people were on welfare or were not regularly employed, fell significantly below the national performance levels on all objectives while those in "advantaged-urban" communities, where a relatively high proportion of residents were in professional or managerial positions, did significantly better than the national performance levels on all objectives. Looking at the specific areas tested--acquiring information, using information, understanding individual development and communicating with others, understanding human organization, and understanding the development of the United States--the rural students did best on objectives that focused on skills and worst on objectives that dealt primarily with factual knowledge.

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132

ED262097

National Assessment of Educational Progress: An Update of the Data Collection Process.

Goodison, Jules
Apr 1985
17p.
EDRS Price - MF01/PC01 Plus Postage.

Since 1969 the National Assessment of Educational Progress (NAEP) has conducted annual assessments to determine, in the language of the current legislation, "the performance of children and young adults in the basic skills of reading, mathematics and communications" and to "report data periodically on changes in the knowledge and skills of such students over a period of time." Since 1983, when Educational Testing Service (ETS) received the grant to administer NAEP, some important changes have been made in the original NAEP design to increase its utility, including: (1) sampling by grade as well as age, thereby allowing schools and states to compare NAEP data with their own grade samples; and (2) Balanced Incomplete Block (BIP) spiralling. Sampling became more efficient in BIP spiralling, since particular blocks of exercises were given to fewer students within a school, but were administered in more schools. Computation of correlation coefficients between all exercises was made possible in that each pair of blocks received a response. Individual items were still reported, and correlations were estimated from comparatively small samples. Diagrams of the spiralling process and tables depicting school cooperation and student participation accompany the text.

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133

ED262096
NAEP Analysis Procedures and Methodology.
Beaton, Albert E.
National Assessment of Educational Progress, Princeton, NJ. 3 Apr 1985
14p.
EDRS Price - MF01/PC01 Plus Postage.

This paper overviews technical developments in data analysis procedures for the National Assessment of Educational Progress (NAEP) reading data during 1984. The highlight of the reshaping of the NAEP data has been the scaling using item response theory (IRT). AT this point in the data analysis, an IRT-based scale appears appropriate for reading proficiency. A single dimension that spans the three grade levels (4, 8, and 11) and the three age levels (9, 13, and 17) has been located. A report of results on a scale representing a hypothetical test with known properties is in preparation. Effects of changing the administration of exercises from a tape recording to pencil-and-paper have been examined. Data from past NAEPs are being rescaled onto the new reading proficiency scales for analysis of trends. Present technology has been adapted to mesh with the new Balanced Incomplete Block (BIB) spiralling. The following activities are discussed in detail: (1) the multifaceted approach to establishing the dimensionality of the reading parameters; (2) estimation of reading parameters; (3) proficiency imputation; (4) the reading proficiency scale; and (5) trend data.

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134

ED260096

NAEP Perspectives on Literacy: A Preview of 1983-84 Writing Assessment Results, the Young Adult Literacy Assessment and Plans for 1986.

Mullis, Ina V. S.

3 Apr 1985

16p.

EDRS Price - MF01/PC01 Plus Postage.

In 1983-84, the National Assessment of Educational Progress (NAEP) administered a 15-task writing assessment in grades 4, 8, and 11. The tasks involved informative, persuasive, and imaginative writing, and were evaluated at one of four levels of success: unsatisfactory; rudimentary or minimal performance; satisfactory; or detailed and controlled performance. In the informative or explanatory task, one-fourth of the fourth and over half of the eighth and eleventh graders were rated as satisfactory or higher. In another explanatory writing task, over half of the fourth graders were unable to perform the task, but 80-85 percent of the eighth and eleventh graders achieved satisfactory or better results. In a persuasive writing task, four percent of the fourth, 14 percent of the eighth, and 21 percent of the eleventh graders wrote adequately and extensively supported essays. In an imaginative writing exercise about ghosts, 86 percent of the fourth, 91 percent of the eighth, and 95 percent of the eleventh graders achieved satisfactory or better results. Ratings on another imaginative exercise were lower. The 1986 NAEP will include reading, mathematics, science, computers, United States history, and literature.

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135

ED259316

Testing and Evaluation in Reading and Communication Skills: Abstracts of Doctoral Dissertations Published in "Dissertation Abstracts International," January through June 1985 (Vol. 45 Nos. 7 through 12).

ERIC Clearinghouse on Reading and Communication Skills, Urbana, Ill. 1985

12p.

EDRS Price - MF01/PC01 Plus Postage.

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 16 titles deal with a variety of topics, including the following: (1) the effects of rating errors on the speech rating process, (2) the efficiency and accuracy of informal assessment procedures in determining instructional reading levels in the elementary school, (3) reading proficiency discriminators derived from definitions of reading based on a national survey of competency tests for grade 11 from 133 large urban school districts, (4) an administrative model for monitoring the teaching of student assessment standards in communication, (5) the relationship between concept of story and a standardized measure of reading comprehension, (6) differences in student comprehension resulting from the use of a probing technique, (7) the effect of different peer performance discrepancy decision rules on the proportion of elementary school students determined eligible for special education assessment in reading or math, (8) the development and validation of a reading attitude assessment instrument for junior high school students, (9) recalculation of four traditional and two cloze-derived readability formulas, (10) a comparison of two models for individual scoring of National Assessment of Educational Progress's 1979-80 reading/literature data for 17-year olds, and (11) an elementary school program for effective acquisition of basic skills.

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136

ED255868
Why Change? A Teacher's Perspective.
Welsh, Vida
Mar 1985
11p.
EDRS Price - MF01/PC01 Plus Postage.

The creation of a new reading program at a New Jersey elementary school can provide administrators with a lesson in trying to make major changes in schools. A reading specialist presented research from the National Assessment of Educational Progress indicating the need for a different approach to reading instruction, as shown by reduced reading performance among students in the middle elementary grades. During 1981-1982 an innovative reading program was selected, a workshop was held, pilot groups were established, a new program inititated by pilot groups was formed, and a formal proposal for the rest of the classes was written. In the spring of 1982 another workshop led by an experienced reading teacher provided demonstrations and discussion sessions. Literature was used as the core instead of as a supplement to the basal program. Trade books replaced basal readers and workbooks were replaced by group and individual projects related to the books. A newly formed leadership team and the administration provided support, while necessary materials, college courses, and attendance at workshops were funded. Details were worked out for organizing time, keeping records, reporting to parents, covering skills, evaluating materials, selecting classroom libraries, and adjusting the program to the needs of the student body. Although the program is fully operational and considered a success, administrators need to note these things about making a change: (1) trust needs to be established, (2) a need for change must be shown, and (3) a better alternative plan must be presented.

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137

ED254429

Educational Productivity in Science Education: Secondary Analysis of National Assessment in Science Data.

Fraser, Barry J.; And Others
Apr 1985
48p.
EDRS Price - MF01/PC02 Plus Postage.

This study used data collected during 1981-82 from a random sample of 1,960 9-year-old students from 124 elementary schools involved in a national assessment of educational progress in science. The database was used in secondary analyses which probed the validity of a model of educational productivity involving a set of nine aptitudinal, instructional, and environmental variables which require optimization to increase student learning. When controlled for other factors, ability, motivation, class environment, home environment, amount of television viewing (negative direction), sex, and race were all found to be significantly related to achievement. For an attitude outcome, the factors linked with attitudinal attainment were ability, motivation, class environment, and race. These results for 9-year-olds were compared with those emerging from secondary analyses of data provided by 1,950 17-year-olds and 2,025 13-year-olds participating in the same assessment. Overall, the findings supported the model of educational productivity and suggested that science students' achievement and attitude are influenced jointly by a number of factors rather than one or two dominant ones. The study also attests to the potential value of science education researchers performing secondary analyses on the high-quality random databases generated as part of national assessments.

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138

ED252976

Indicators of Education Status and Trends.

Department of Education, Washington, DC. Jan 1985
117p.
EDRS Price - MF01/PC05 Plus Postage.

The Department of Education has assembled 20 "indicators," drawn from the mass of available statistics on institutions, enrollments, finances, and staff, that describe the condition and progress of elementary and secondary education. Data are assembled under three categories of measures: outcomes, resources, and context of education. The section on outcomes contains such measures as the proportion of 18- to 19-year-olds who have graduated from high school, student achievement, and what students do after they graduate. Student performance data are drawn from the National Assessment of Educational Progress, the Scholastic Aptitude Test (SAT), and the American College Testing Program (ACT). A study by the International Association for Evaluation of Educational Achievement (IEA) compares mathematics achievement in grades 8 and 12 in the United States with that of comparable students from 18 other countries. The resources section contains data on such measures as fiscal resources, quantity and quality of the teaching force, estimated teacher supply and demand, and teacher earnings. The section which focuses on context of education includes such variables as instructional climate of the school, opinion and support of parents and the community, student characteristics, graduation requirements, and an index of state requirements for special educational services. Eleven appendixes provide supplementary data and a glossary concludes the report.

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139

EJ349817
Predicting Elementary Science Learning Using National Assessment Data.
Welch, Wayne W.; And Others
Journal of Research in Science Teaching, v23 n8 p699-706 Nov 1986
Available From: UMI

Describes a secondary analysis of a national assessment of educational progress in science which was conducted in 1981-1982 with students of age nine. Suggests that elementary school students' achievement and attitude are influenced jointly by a number of factors rather than by one or two dominant ones.

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140

EJ346518
Achieving Literacy: An Essay Review of Two National Reports on Reading.
Rubin, Donald L.
Metropolitan Education, n2 p83-91 Fall 1986

Two recent reports on reading have attempted to do the following: (1) summarize national trends in reading performance; (2) review research pertaining to reading education. After discussing the findings of both, the article concludes that each fails to address seriously the broad cultural significance of illiteracy and literacy.

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141

EJ343755
Reading: How the Principal Can Help.
Finn, Chester E., Jr.; McKinney, Kay
Principal, v66 n2 p30-33 Nov 1986
Available From: UMI

Provides examples of many innovative ways principals can establish a "reading climate" in their schools. Includes ways to involve parents, community members, school libraries, and teachers in reading enjoyment programs. Discusses some of the most successful techniques for teaching reading.

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142

EJ343279
Do Not Buy the Conventional Wisdom: Minority Teachers Can Pass the Tests.
Holmes, Barbara J.
Journal of Negro Education, v55 n3 p335-46 Sum 1986
Available from: UMI

Abolishing standards underlying teacher competency testing to reverse bias against minorities actually results in lowered expectations and excuses poor performance. Rather, we should advocate educational progress for Black children at all educational levels. Better preparation of current students will eventually result in an improved and larger pool of Black teachers.

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143

EJ341803
Late Adolescent Sex Differences in Science Learning.
Zerega, Margaret E.; And Others
Science Education, v70 n4 p447-60 Jul 1986
Available From: UMI

Explores sex differences in science achievement and examines the possible environmental determinants of these differences. Males scored significantly higher on science achievement and motivation and perceived their classroom environment more positively than females.

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144

EJ341714
Catholic School Minority Students Have "Reading Proficiency Advantage."
Lee, Valerie
Momentum, v17 n3 p20-24 Sep 1986
Available From: UMI

Summarizes National Assessment of Educational Progress findings regarding the reading proficiency of students in Catholic and public schools in fourth, eighth, and eleventh grades. Contrasts results in terms of family background and social status, school characteristics, and behavior associated with academic performance.

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145

EJ341178
The State of Instruction in Reading and Writing in U.S. Elementary Schools.
Lapointe, Archie
Phi Delta Kappan, v68 n2 p135-38 Oct 1986
Available From: UMI

Summarizes 15 years of National Assessment of Educational Progress data on reading and writing in elementary schools. While reading performance has improved over the 1971-1984 period for black and Hispanic 9- and 13-year-olds and for younger disadvantaged children, writing results are less encouraging. Effective writing instruction may require more than variety and hard work.

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146

EJ332053
What Students Say About Science Teaching, Science Teachers and Science Classes in Israel and the U.S.
Hofstein, Avi; And Others
Science Education, v70 n1 p21-30 Jan 1986
Available From: UMI

Compared 2,500 13- and 17-year-old students in the United States with 350 13-year-old and 340 17-year-old students in Israel using test items from the 1976 National Assessment of Educational Progress (NAEP) efforts. The study was designed to examine the results of school science upon affective outcomes of instruction.

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147

EJ331329
Illiteracy and Inner-City Unemployment.
Bernick, Michael
Phi Delta Kappan, v67 n5 p364-67 Jan 1986
Available From: UMI

The San Francisco Renaissance is a job training program for unemployed innercity youths. The illiteracy rates of youths applying to the program are high so a literacy class was developed to raise the students' reading and math skills to the eighth- and ninth-grade levels required by the technical job market for which they are being trained.

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148

ED279707
NAEP and International Comparisons.
Wolf, Richard M.
1986
20p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

This paper examines a number of issues surrounding the addition of a dimension of international comparisons to the National Assessment of Educational Progress (NAEP). The basic position of the paper is that adding an international dimension to NAEP is certainly possible, but some problems will need to be overcome. Non-issues are identified and eliminated, including: (1) the organization of United States participation in the International Association for the Evaluation of Educational Achievement (IEA); and (2) response rates in IEA studies. Issues to be considered fall into three major categories: (1) financial and political, (2) technical, and (3) interpretation. Financial and political problems center around control and support for IEA projects. Another political problem relates to an IEA policy of not releasing any nation's data to another nation until an international report has been released. Technical issues include age and grade levels for testing, test construction, testing conditions, test organization, time of testing, and schedules of studies. When comparing nations, the results will need to be intepreted carefully. An appendix contains background materials about IEA.

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149

ED279706

NAEP Writing Assessment: A Committee Member's Perspective.

Williams, Paul L.

Sep 1986

4p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC01 Plus Postage.

A major issue facing the National Assessment of Educational Progress (NAEP) Writing Assessment is its relationship with the most frequently encountered measurement practices among State Education Agencies (SEAs) and Local Education Agencies (LEAs). Should NAEP conduct its assessments in a fashion that represents how things should be, or reflect the status of how things really are in the nation's schools? Clearly, at some point the debate must be resolved so that program planning can move forward. The predominant method of scoring writing within NAEP is Primary Trait. Most state and local assessments do not use trait scoring. States with well developed writing programs use either focused holistic or analytic scoring, or a combination of the two. NAEP scoring might better reflect an appropriate practice by addressing factors such as: (1) the identification of elements of composition that are desirable given current practice and curricular/instructional direction among the state and local education agencies; (2) the desirable mix of text level and sentence level elements; (3) the applicability of the scoring criteria at the classroom level; (4) the applicability of the scoring criteria across grades; (5) the level of competence elicited by the criteria; and (6) the composition of the group that determines the scoring criteria and rater quality.

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150

ED279705

Assessment at Age Seven.

Williams, Joanna P.

Aug 1986

14p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC01 Plus Postage.

This paper presents arguments in favor of adding reading achievement at age seven to the National Assessment of Educational Progress (NAEP). Progress in reading is developmental. At age seven, most children are in the midst of the crucial stage of beginning reading; by age nine, those making normal progress have moved beyond this stage. Much of what is involved in mature reading is developed during the beginning stage of reading. There is a substantial gap in NAEP's evaluation of reading progress because of the lack of early testing. At age seven (unlike at later ages) important aspects of reading proficiency can be isolated and tested separately. Thus, more than one single scale of overall reading proficiency can be provided. At this age, there is still a wide range of proficiency in certain pre-reading skills that are important predictors of reading ability. Assessment of these skills would provide precise information concerning children who are relatively poor readers. The validity of differing interpretations of the results of recent NAEP assessments, as well as other hypotheses, can be tested with data collected at age seven.

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151

ED279704
Roles, Governance, and Multiple Uses for a New NAEP.
Kirst, Michael W.
1986
20p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

Commissioned papers on the National Assessment of Educational Progress (NAEP) have recommended new roles for NAEP, but its system of governance, as conceived in the 1960s, was not designed for all these functions. The NAEP Policy Committee, revised in 1978, never envisioned the current interest in a linkage system relating local and state assessments of academic achievement to NAEP curricular domains and measurement system. New technologies such as item response theory (IRT) make it feasible to use domain descriptions and item pools for such linkages. The current law, Public Law 95-561 as amended in 1981, needs to be augmented with the new functions envisioned by the Study Group; Section 1242, specifying the Assessment Policy Committee (APC) should be revised to encompass fair comparisons among states and local school districts. The APC membership should also reflect the new emphasis. Members should be appointed by the Secretary of Education, rather than by the organization conducting the assessment. The APC, ideally housed within the Federal Government, would govern the activities of the contractor who administers and analyzes the testing. Sections of Public Law 95-561 and Public Law 98-511, a description of The Advisory Commission on Intergovernmental Relations (created by Congress in 1959), and a summary of the structure of the APC are appended.

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152

ED279703
Some Thoughts on the National Assessment of Educational Progress in Science.
Welch, Wayne W.
1986
19p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

This paper evaluates the procedures and results of the National Assessment of Educational Progress (NAEP) in science. A brief description of the 1981-82 assessment, funded by the National Science Foundation, precedes a discussion of strengths and weaknesses of the current science assessment program, conducted by Educational Testing Service. Major strengths include: high technical quality; accurate portrayals of the national picture; consistent procedures enabling comparison across time; appropriate content; policy impact; and identification of report group differences. Criticisms include: (1) the science assessment cycle has been unnecessarily irregular; (2) assessments tend to focus on traditional subject matter content and to collect little additional information; and (3) subject matter experts who possess a commitment to their field do not seem to have sufficient interest in the data to attempt the difficult task of analyzing unfamiliar data tapes. The assessment program could be strengthened by requiring contractors to include the services of experienced subject matter researchers into the budget proposals. Data should be regularly gathered, and the measurement of attitudes toward science should be improved. Lines of communication between NAEP and the community of educators is essential for continued support of the assessment and for maximizing the educational impact of the information being gathered.

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153

ED279702
Literacy and the NAEP Reading Assessments. A Background and Position Paper Prepared for the NAEP Reading Review Subcommittee.
Venezky, Richard L.
Aug 1986
22p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

This paper reviews literacy and literacy assessment in America, in relation to the various National Assessment of Educational Progress (NAEP) reading assessments. Literacy can be defined and assessed only in relation to literacy demands. A current concept of literacy distinguishes between reading comprehension as an outcome of lexical access and comprehension processes, and literacy as the application of particular skills in a social context. Closely related to the changing definitions of literacy are the techniques employed for assessing literacy. The most refined literacy assessment to date is the NAEP Young Adult Literacy Survey. Analysis of the responses from this study show multiple dimensions to literacy. NAEP reading objectives have shifted from a behavioral to a process-oriented view. Scale scores (which may reduce the educational value of a test, but offer psychometric convenience) have replaced estimated percentage correct for items or item types. Several recommendations are made: (1) the NAEP Reading Assessment should focus on surveying the skills and attitudes of real-world literacy in youth and young adults; (2) NAEP's Reading Assessment should cover high school dropouts and young adults, as well as in-school students; (3) public reporting of NAEP assessment scores should emphasize item types, using weighted percentage correct; and (4) NAEP should report results objectively, without pressure to promote political agenda.

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154

ED279701
The Governance of the National Assessment of Educational Progress.
Tyler, Ralph W.
1986
20p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

This document discusses the Assessment Policy Committee established to design and supervise the conduct of the National Assessment of Educational Progress (NAEP) and describes the legislation supporting the Committee. It proposes that the governance of NAEP be the responsibility of a board composed largely of educational policy makers, and those influencing policy, with a minority of persons representing educational practitioners, teachers, and school administrators. It recommends that five panels of experts be established to advise the board on: (1) the selection of educational objectives to be assessed; (2) test construction; (3) sampling procedures; (4) reporting and interpreting test performance; and (5) potentials and limitations of educational surveys. When NAEP was transferred from the Education Commission of the States to Educational Testing Service, specialized in-house advisors replaced committees on test construction and analysis. In-house advice is cheaper and more efficient, but has limitations. First, no contractor has the range of experience required. Furthermore, the contractor is influenced by the assumed competence of the internal staff and has little incentive to question the staff's concepts or procedures. A national assessment, like the United States Census or the National Public Health Surveys, requires that its basic concepts and procedures be critically reviewed by experts and laymen from a variety of backgrounds. The appendix includes relevant sections of Public Law 95-561 and Public Law 98-511.

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155

ED279699

Efficient Methods for Sampling Out-of-School Seventeen-Year-Olds in the National Assessment of Educational Progress.

Spencer, Bruce D.

11 Sep 1986

20p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC01 Plus Postage.

The National Assessment of Educational Progress (NAEP) currently tests seventeen-year-old students enrolled in public and private secondary schools, but it does not test "out-of-school" seventeen-year-olds who have either graduated or dropped out. Estimating that one of five seventeen-year-olds is out of school, the interpretability of NAEP findings is weakened by omitting those persons from assessment. This paper considers precision and sample size, as well as sampling strategies, for assessing out-of-school seventeen-year-olds. Four types of statistics (comparisons of average scores for states, average scores for population subgroups, comparisons across states of proportions of seventeen-year-olds performing at a given level, and proportions of subpopulations performing at a given level) are considered and illustrated with tables to indicate sample sizes necessary to attain alternative target levels of precision in the statistics. Two kinds of sampling strategies are described, one based on sampling households and other places of residence and the other on sampling at younger ages for recontact at age seventeeen. It is concluded that sampling out-of-school seventeen-year-olds will be best accomplished through cooperation with other ongoing survey efforts, such as the Current Population Survey of the Bureau of the Census and the National Educational Longitudinal Studies.

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156

ED279697

National Assessment of Values and Attitudes for Social Studies.

Shaver, James P.

Aug 1986

29p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC02 Plus Postage.

Three key terms--social studies, values, and attitudes--are discussed in relation to a national assessment in social studies. Definitions of these terms will affect decisions about what and how to assess. Two major approaches define social studies as: (1) social sciences simplified and adapted for pedagogical purposes; or (2) that portion of the school curriculum which is focused specifically on citizenship education. Curricular and assessment implications of choosing a definition become clearer when the objects of assessment--values and attitudes--are defined and linked to a definition of social studies. The citizenship education role of social studies should not only be acknowledged, but taken as the centering concept in a national assessment. Acceptance of that perspective, along with the careful definition of values and attitudes, suggests significant and feasible areas of assessment. Careful analysis of prior National Assessment of Education Progress (NAEP) work and the consideration of measurement alternatives can produce results which are more meaningful, useful, and valid than those from prior NAEP social studies assessments.

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157

ED279696

National Assessment of Mathematical Performance.

Romberg, Thomas A.

18 Aug 1986

46p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC02 Plus Postage.

Four topics related to mathematics testing for the National Assessment of Educational Progress (NAEP) are discussed: (1) mathematics achievement; (2) past NAEP approaches; (3) needed changes; and (4) a new conceptual basis for profiling mathematical performance, including recommendations for strengthening current practice. The basic strategy for gathering profile information for students at several age (grade) levels used in the past assessments has been reasonable and has yielded useful information, affecting school mathematics. Current procedures could be improved by discarding content-by-behavior matrices and by adopting a network model, such as conceptual fields. The types of exercises included in the batteries should be expanded to reflect the network model. New contexts should be included so that the construction of knowledge can be assessed. The sampling base can be changed so that data can be gathered for state comparisons. From the rich data such an improved assessment would yield, it should be possible to construct reasonable indicators for use by policymakers. The final four recommendations propose that: (1) work be initiated to identify major conceptual fields in mathematics; (2) future assessments encourage the development of a variety of alternate items and testing formats; (3) the data base be increased so that it reflects current expectations about how students construct mathematical knowledge to build a theoretical model of mathematical performance; and (4) reasonable indicators be constructed from that model for policy purposes. (An extensive list of references is appended.)

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158

ED279695

The National Assessment of Educational Progress: Issues and Concerns for the Assessment of Hispanic Students.

Rivera, Charlene
27 Sep 1986
33p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC02 Plus Postage.

The redesign of the National Assessment of Educational Progress (NAEP) has resulted in improved usefulness of the data set to conduct policy relevant research on Hispanic student achievement. Improvements include changing the procedure for ethnic identification to self-reporting, modifying sample selection, and planning for the conduct of special assessments. The Language Minority Survey (LMS) was designed to: collect data on student participation in special programs; analyze achievement of students with non-English language backgrounds; and examine the relationships between achievement and relevant school, teacher, and student attitudes. LMS, however, will not assess the progress of LM limited-English-proficient youth. Sampling procedures have incorporated grade and age-level sampling, documentation of excluded students, and Basic Incomplete Block (BIB) sampling. The "new" NAEP has been structured to address policy-relevant issues such as national concerns, human resource needs, and school effectiveness. It should now be possible, if the commitment is made, to examine the achievement of Hispanic youth, and to find ways to encourage persistence in school, factors contributing to achievement, and the affects of the effective school movement. Students' educational experiences and aspirations could be examined through the Common Background Questionnaire; however, the aspiration question does not appear in this questionnaire for the general 1986 NAEP assessment. Other suggestions for improvement are presented.

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159

ED279693

Position Paper on the Potential Use of Computerized Testing Procedures for the National Assessment of Educational Progress.

Reckase, Mark D.
4 Sep 1986
20p. One of 46 papers commissioned by the Study Group on the National

Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC01 Plus Postage.

The current technology of computerized testing is discussed, and a few comments are made on how such technology might be used for assessing school-related skills as part of the National Assessment of Educational progress (NAEP). The critical feature of computerized assessment procedures is that the test items are presented in interactive fashion, allowing the examinee and the computer to alternate in transmitting information. Two of the more popular of the many possible procedures are computerized adaptive testing (CAT) and computerized personality assessment. Advantages of CAT (and other computerized assessment procedures) include flexibility in item selection and administration time, efficiency, greater test security, and clerical processing power. Disadvantages include the cost of the computer equipment, amount of needed computer storage power, and the quality of graphic presentations on the cathode ray tube screen. Other factors relating to computerized testing are: (1) item types; (2) dimensionality of tests; (3) sampling of the content domain; (4) effects of the interaction of mode of presentation and test item; (5) equating of procedures, especially CAT, with less precise paper and pencil tests; (6) test quality—balancing test length versus precision; (7) item pool characteristics; (8) item selection; (9) test scoring; (10) determining the final item (test length); (11) human factors; and (12) the impossibility of omitted items. Testing of students with disabilities is a promising application of computerized assessment for NAEP.

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160

ED279692

Recommendations for the Design of NAEP Writing Tasks.

Quellmalz, Edys

1986

9p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC01 Plus Postage.

Recommendations are made for the National Assessment of Educational Progress (NAEP) assessment of informative, persuasive, and imaginative writing. Five major objectives should be assessed by NAEP: (1) writing as a way of thinking and learning; (2) writing to accomplish a variety of purposes; (3) managing the writing process; (4) controlling forms of written language; and (5) valuing writing. However, the present scheme for design and selection of writing tasks is very general and does not seem to measure all five objectives. A better framework, like the one developed for the International Study of Achievement in Written Composition, is needed to define, classify, and interrelate what is assessed. Detailed task specifications are also needed, as well as expanded coverage of underrepresented tasks. A synthesis of current theory and research on writing skill development and assessment should be used to explain the reasons for including certain tasks. Use of task specifications is recommended to develop teacher-designed exercises, parallel tasks, and cross-age tasks. Allowing students to choose a writing topic, providing greater amounts of writing time, and paying more attention to writing in the content are among the improvements suggested. A more balanced combination of test developers should include state and local assessment personnel, curriculum experts, and representatives of the research and measurement communities.

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161

ED279691
Purposes of the National Assessment for Educational Progress.
Peterson, Paul E.
1986
30p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC02 Plus Postage.

The major purpose of the National Assessment of Educational Progress (NAEP) is to provide information useful for improving the quality of American elementary and secondary schools. NAEP has focused more on the measurement of academic achievement than on the need for information on learning contexts. Additional information is needed about why students perform as they do, and additional assessment of schools is desirable. NAEP has responded to its critics by treating and reporting all items separately and equally, countering the fear of creating a national curriculum. Recent efforts have strengthened test reliability and test validity, and earlier data has been reanalyzed to permit more reliable comparisons over time. NAEP data, although not as familiar as Scholastic Aptitude Test scores, have often been used to evaluate American education and achievement trends. However, more information is needed about learning contexts and school effectiveness: what works; causes of declines; and effects of peers, family, teachers, textbooks, curricula, finances, classroom organization, and special programs. Panel data comparing an individual's performance over the years while exploring contributing factors would be a costly but valuable data collection effort. NAEP might also be used to evaluate special education or compensatory programs, and national labor needs.

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162

ED279690
Reasoning in Argument Evaluation.
Nickerson, Raymond S.
1986
72p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC03 Plus Postage.

A number of higher order cognitive skills are used in the task of evaluating arguments. Such skills should be assessed because the ability to evaluate arguments is an important one in all subject areas. In addition, it seems reasonable to assume that these evaluative skills will be representative of those required by other cognitively demanding tasks. Specific theories and curricula for evaluating persuasive arguments are not available to guide test construction; in lieu of a theory, reasoning in argumentation is defined and some of the processes involved are explained. Understanding of the difference between logical validity and empirical truth is one component of effectively evaluating formal arguments. Evaluation of informal arguments involves many skills: analysis, judging relevance and weight, synthesis, use of prior knowledge, information seeking and selection, and estimation. Based on the assumption that teachers do teach to the test, it is important to find ways to test the ability to evaluate arguments and to diagnose students' skills. The 31-page appendix describes ways to make multiple choice tests more informative, both to examiner and examinee.

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163

ED279689
The Assessment of Discourse in Social Studies.
Newmann, Fred M.
15 Aug 1986
22p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

Social studies assessment for the National Assessment of Educational Progress (NAEP) should focus on students' oral and written discourse on social topics. Discourse is language produced by the student with the intention of providing a narrative, argument, explanation, or analysis. The assessment of discourse is important because: emphasis on discourse will facilitate social studies learning, this type of assessment indicates higher level thinking, and the development discourse itself is the ultimate objective in social studies education. Knowledge need not be tested first, separate from the discourse intended to clarify a problem or topic. The production of language is an integral part of learning and does not occur only after bits of knowledge are acquired. Instead, the acquisition, storage, retrieval, application, and synthesis of knowledge are all complex and interactive processes. Topics which would be suitable for testing students' ability to conduct intelligent discourse, both written and oral, include: the Constitution and Bill of Rights, slavery, and citizenship responsibilities. A reasonable response would be a 300-word essay or an oral response which could be audiotaped and transcribed. Logistical testing problems and students' lack of classroom speaking experience both present difficulties for oral assessment. Holistic and primary trait scoring predominate as forms of direct assessment of students' writing skills; both types of scoring produce reliable scores at acceptable levels of cost. The challenge in discourse analysis lies in the area of comparisons across age groups and nations. Seven sample test items are appended.

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ED279688
Explanatory Skills.
Miller, George A.
1986
33p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC02 Plus Postage.

In assessing the quality of science teaching for an effort such as the National Assessment of Educational Progress (NAEP), it is important to understand what is meant by scientific thinking--the search for explanations. Instruction should involve higher-order cognitive skill development, but it is difficult to measure reasoning and understanding with traditional multiple choice tests. Additionally, time spent on improving students' multiple-choice test performance reduces the time available for strengthening more complex skills. Increased use of tests in other formats would encourage the teaching of these skills. Cognitive theorists have recognized that thinking and learning rely heavily on the construction of explanations. In the many examples of learning activities presented in this paper, cognitive learning is shown to be driven by the search for explanations. Current developments in cognitive research justify that effort be dedicated to the assessment of explanatory skills. Testing alternatives include multiple choice tests designed with less emphasis on factual memory, essays, free response tests, interviews, thinking aloud protocols, and performance tests. Empirical studies of explanation are recent. They include literature on the development of explanatory skills and on the social role of explanations. Tests of divergent productions are the result of psychometric studies of explanation. The development and use of tests that sample students' ability to offer scientific explanations could add an important dimension to NAEP.

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165

ED279687
Understanding Arithmetic Story Problems.
Marshall, Sandra P.
1986
19p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

Open-ended individually administered questions can ascertain whether students can reason about arithmetic problems. Free response test items are useful in assessing students' thought processes as they solve mathematics story problems. Since story problems do not state explicitly which arithmetic operations are required for solution, students must decide to use a particular operation. Higher order cognitive skills are used in solving such problems. Different strategies may be used to solve a problem, reflecting different understandings of the problem. Appropriate schema--a memory structure describing common elements in seemingly different situations--are necessary to solve problems. To assess use of appropriate schema knowledge, it is necessary to know which information is considered by the student to be important in solving the problem. Test items can ask students to state what is important directly; to act out the problem using objects or drawings; to group problems according to similarity; to retell the problem; or to construct similar items. The emphasis in the paper is on story problems typical of first through eighth grade arithmetic. Six story problems, especially appropriate for grades 3 and 6, are included to illustrate the measurement of understanding of strategies and problem solving knowledge.

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166

ED279686
The Politics of Testing/Assessment (Or a Chameleon in the Classroom).
Lewis, Anne E.
19 Aug 1986
23p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

A number of political issues are involved in educational testing and the National Assessment of Educational Progress (NAEP). Many school officials are disturbed by the number of tests administered and the information and instructional time lost; they are reluctant to accede to further voluntary testing programs which might duplicate current efforts. State-by-state comparisons of published test results may reduce the amount of authority held by local school districts for decision making and curriculum formulation. Response to minimum competency testing, and the linking of teachers' merit pay or dismissal to student achievement have been strongly challenged. Groups' attitudes toward teaching to the test (i.e., coaching), and toward various uses of tests are quite subjective, but some groups are ready to do battle if assessment data are used in a punitive fashion. Other attitudes toward federal data collection efforts include: support for national testing if it is useful, desire for testing to not be duplicative or costly, and general trust in NAEP' s program of a national assessment with state comparisons. Test scores tend to be reported simply, without explanations of their meaning; they should, however, be interpreted by education specialists. It is suggested that national testing be well-designed, avoiding compromises which would limit its usefulness. Proponents of school-based decision making and alternatives to standarized testing will counterbalance the support for national testing.

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ED279685
NAEP: A National Data System for the 21st Century.
Kearney, C. Philip
19 Sep 1986
34p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC02 Plus Postage.

The National Assessment of Educational Progress (NAEP) has the potential to become a national data system and to meet the rapidly expanding needs for educational information. Historically, NAEP has had the objectives of providing relevant information for federal, state, and local policymakers; establishing a research database; and monitoring performance levels. Now, increasing emphasis on the linkages between and among achievement outcomes, settings, and processes is encouraged. Suggestions for the evolution of the future NAEP database include ideas for improving data collection and storage. A number of requirements are summarized. The system should be comprehensive, encompassing background characteristics, the schooling process, and outcomes. Data elements, files, and records should be linked. Data should be representative, accurate, comparable, timely, private, and secure. Plans for processing and analysis and for the flow of information must be in place. System costs should be shared by various users, rather than relying entirely on federal support.

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168

ED279684
The Future Assessment of Educational Progress: Specifying Background Variables and Subpopulations.
Jones, Lyle V.
1986
19p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

It has been proposed that the National Assessment of Educational Progress (NAEP) increase its efforts to gather and analyze data on student background, teachers, households, and schools. Adoption of this proposal would result in the inclusion in NAEP of additional background variables and subpopulations, to be defined by states. NAEP specification of subpopulations has allowed efficient sampling, examination of various subpopulations' achievement levels, and interesting statistical comparisons. Traditional NAEP subgroups have involved community characteristics (region, size, and type) and student characteristics (age; sex; ethnic group; parental education; and time spent on activities such as television, reading, and homework). It is desirable to maintain those reporting categories judged to be policy relevant, whether or not they have been consistent with national achievement trends. It is difficult to define and measure the most important policy relevant variables; prior research should support their validity as reliable indicators of the intended characteristics or process. Future reporting categories should allow meaningful comparisons for 1969-1987. Central control of data is suggested. Suggestions for state sampling and reporting of results are also presented.

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169

ED279683
Relationships between the National Assessment of Educational Progress and the National Educational Longitudinal Studies Program.
Jones, Calvin C.
National Opinion Research Center, Chicago, Ill. 2 Sep 1986
74p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC03 Plus Postage.

The National Assessment of Educational Progress (NAEP) is compared to the two studies of the National Educational Longitudinal Studies (NELS) Program--the National Longitudinal Study of the Class of 1972 (resurveyed in 1973, 1974, 1976, and 1979) and the 1980 High School and Beyond study (partially resurveyed and retested in 1982). The third phase of the NELS program, the National Education Longitudinal Study of 1988 (initiated in 1986) breaks new ground. Transitions into and through secondary school and the processes of program selection and tracking will be studied, and a less biased sample of dropouts will be included. There are advantages and disadvantages to greater integration and exchange of information between these studies. Five factors influencing the utility of the data collected in these two programs are reviewed: (1) Population definitions and sample designs are inconsistent and change over time. (2) The response burden upon institutions and individuals can be lessened by NAEP's use of matrix sampling and BIB spiralling. Coordination is needed to prevent schools from participating in both surveys at once, and to help in data exchange. (3) Data should be useful to educators and administrators at the state and local level. NELS allows states to survey supplemental data; this may also be useful for NAEP. (4) Data collection and processing costs may be helped by states' supplementary data collection and by increased efficiency. Otherwise, the required sample sizes would be too large and too costly. (5) Opportunities provided by new technology involve microcomputers, computer assisted testing, and computer assisted interviewing.

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ED279682
What Do the Test Scores Really Mean? Critical Issues in Test Design.
Herman, Joan L.
1986
13p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

Issues in designing valid tests for the National Assessment of Educational Progress (NAEP) are discussed. Test scores are often provided without any information on the nature of the tasks represented. Because test domains are defined by individual item writers, the generalizability between tests and items is suspect. While typical content validation procedures help assure that the included items are important, they still might not represent the full range of knowledge and skills constituting given domains. As a result, the underlying meaning of what is tested is vague, and the specific definition of what is to be tested escapes public scrutiny. This is especially important when matching particular tests and curricula among states. Better specification of test content and task structure is recommended. Elements in good task structure should include: task description; content limits; linguistic features; cognitive complexity; and format. Recent NAEP assessments defined four different types of context for test items: (1) scientific, (2) personal, (3) societal, and (4) technological. Three levels of cognitive complexity items were defined: (1) knows, (2) uses, and (3) integrates. Six categories of subject content were specified. In conclusion, NAEP planners should emphasize content validity; define more specifically what is to be tested; provide better models for item construction; and assure that the entire domain is represented.

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ED279681

Toward an Ideal System of National Assessment of Educational Progress: A Local Perspective.

Hathaway, Walter E.

Aug 1986

55p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC03 Plus Postage

An ideal system of the National Assessment of Educational Progress (NAEP), from the local school district perspective, must follow several principles based on the 1985 Standards for Educational and Psychological Testing: (1) Testing must be viewed by teachers and students as worthwhile. (2) Test results must be presented in a timely and useful fashion. (3) Testing at national, state, and local levels should not be redundant. (4) Measurement should not disrupt normal classroom activities and attendance. (5) Reports should focus on factors over which the instructional leaders have some true control. (6) Tests should measure only curriculum outcomes which are being taught or which, it is agreed, should be taught. The ideal system would link national, state, and commercially available item banks. For each of the basic skill areas, five components would be included: (1) national learning objectives, (2) national public domain item banks, (3) a linking measurement scale, (4) a test development system, and (5) a testing or data collection system. The appendices, which constitute the greater part of the document, discuss federal government-school district relationships, data collection and decision-making plans, Oregon's school district profile, and an extensive presentation of the Portland (Oregon) School District's development of calibrated item banks ("A Regional and Local Item Response Theory Based Test Item Bank System," by Hathaway, Houser, and Kingsbury).

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ED279680

Effects of Standardized Testing and the Future of the National Assessment of Educational Progress. Working Paper for the NAEP Study Group.

Haney, Walt; Madaus, George

Sep 1986

37p. One of 46 papers commissioned by the Study Group on the National

Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC02 Plus Postage.

Topics related to the National Assessment of Educational Progress (NAEP) are discussed. Issues affecting the impact of testing on education include: what is tested; how scores are referenced; internal versus external sources of testing; and the rewards, sanctions, or stakes associated with test results. Testing has both intentional (direct) and indirect effects. Seven principles regarding the impact of testing are especially true when the tests are used for important social decisions: (1) measuring any social indicator results in its distortion or change in status; (2) the power of testing is determined by the perception of its effects; (3) teachers will teach to the test; (4) previous tests influence curriculum content; (5) instruction and learning are adjusted to test format; (6) test results become a major goal of education; and (7) control of the curriculum is transferred to the testing agency. NAEP can use test information: (1) to inform policy makers about the current state of education, or (2) as administrative devices in policy implementation. NAEP is the most valid source of national achievement data and has been designed to inform educational policy making, rather than to direct it. Increasing its policy-making ability might have distorting effects or threaten test validity. It has been, and will continue to be useful as a model for other testing activities. (A list of ERIC references concerning assessment is included.)

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173

ED279679
Domain Definition and Exercise Generation as Functions of the National Assessment of Educational Progress.
Haertel, Edward H.
27 Sep 1986
18p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

It has been recommended that the National Assessment of Educational Progress (NAEP) specify comprehensive exercise domains to measure academic achievement, and provide a national item pool to measure the objectives in these domains. These domain specifications and item pools would serve to satisfy the increasing demand for valid, accurate, and detailed testing and interpretation. Item response theory (IRT) can be used to tailor tests to different purposes and populations. The domain would consist of a set of objectives, hierarchically organized, spanning some range of cognitive learning outcomes. The corresponding item pool would include items written according to the specifications for each objective, appropriately reviewed, field tested, and calibrated. Nationally developed domains and item pools could be used to compare states' curriculum guidelines, describe achievement trends, and quantify achievement in a manner superior to traditional norm referenced tests. NAEP, at the Federal level, provides the natural vehicle for such efforts. Domain descriptions in each curriculum area should represent the content at various levels of aggregation and reflect skill hierarchy, referent generality, and instructional sequence. Implementation issues requiring further consideration involve comprehensiveness of outcome domains, including items for all objectives and affective objectives; choice of IRT model, standards and criteria; and reporting of results.

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174

ED279678

Roles of the National Assessment of Educational Progress in International Studies.

Guthrie, John T.

23 Jul 1986

13p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC01 Plus Postage.

This paper discusses the rationale for international comparisons in educational achievement, presents factors which affect the validity of such comparisons, and makes recommendations for the role of the National Assessment of Educational Progress (NAEP) with respect to international studies. International comparisons are of interest in policy formation, resource allocation, and school improvement programs. Four prerequisites to international assessment also weigh heavily in an individual, national testing program: (1) the scope of item content must be equitable for each of the countries involved; (2) comparisons across countries will be facilitated by the use of common scaling techniques; (3) sampling must be representative and aedquate; and (4) the appropriate language must be used in testing. NAEP can facilitate international comparisons by collaborating with existing efforts such as those of the International Association for the Evaluation of Educational Achievement (IEA). NAEP can provide technical assistance in data collection and statistical analysis. An official liaison between NAEP and IEA is recommended at the policy level. An annual cooperative working meeting is also recommended.

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175

ED279677

The Assessment of Artistic Thinking: Comments on the National Assessment of Educational Progress in the Arts.

Gardner, Howard; Grunbaum, Judith

Sep 1986

39p. One of 46 papers commissioned by the Study Group on the National

Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC02 Plus Postage.

Arts education and its assessment are discussed, with particular emphasis on the visual arts. Suggestions are made concerning the role of the National Assessment of Educational Progress (NAEP) in the arts. The curriculum which is presented in art education varies a great deal among schools. The assessment of art should include production, perception, and artistic thinking. Previous NAEP test items focused on perception and response to aspects of art, valuing of the arts, production in the arts, and knowledge about art. About three-fourths of the NAEP items require verbal responses. Items involving the evaluation of art and production are more valuable than items assessing attitudes about art. More performance items are recommended. About 20 tests measuring artistic perception and knowledge are briefly described, as are the qualitative methods of responsive evaluation, connoisseurship, critiques, and portfolios. The NAEP items were judged, in general, to perform as well as any of the tests. An alternative approach involving student portfolio is discussed. Suggestions for other approaches to consider involve artistic critques, aesthetic reasoning, and the relationship of artistic activity to one's personal life and values.

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ED279676

The Assessment of Social Studies Knowledge. Draft .

Fraenkel, Jack R.

Aug 1986

30p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC02 Plus Postage.

The curriculum content of elementary and secondary school social studies is discussed as it relates to the assessment of social studies learning. In addition, recommendations are made for future efforts in the National Assessment of Educational Progress (NAEP). The social studies curriculum involves both factual learning and concept learning. Topics in grades K-5 generally focus on the: child, family, and school; neighborhood; local community; state and region; and nation. Grades 6-8 usually emphasize world cultures, while high school courses are dominated by history and government. Although the learning of facts is important in social studies, assessment should also indicate whether or not students can use the collection of facts in a meaningful way. Concept learning allows students to organize and relate information, and it facilitates understanding. Concepts vary in their degrees of complexity, abstraction, and differentiation. Concepts may be learned through an informal curriculum or serendipitously, since a great deal of social studies teaching concentrates on facts. Multiple choice tests are not useful in testing students' understanding of concepts. Instead, the pretesting and posttesting of concepts in which students are weak is suggested. NAEP items should ask students to explain, interpret, compare, express relationships, and draw conclusions.

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177

ED279675

Using NAEP for State-by-State Comparisons: The Beginnings of a "National Achievement Test" and "National Curriculum": Guidelines and Likely Responses to Aid Instruction and Achievement.

Ferrara, Steven F.; Thornton, Stephen J.

12 Sep 1986

13p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC01 Plus Postage

Two major issues related to the National Assessment of Educational Progress (NAEP) are explored: (1) the roles and responsibilities of federal and state education agencies in reformulating NAEP to facilitate comparisons among states; and (2) problems and solutions in aligning or accounting for differences between national assessment objectives and state and local curricula. It is predicted that NAEP will come to be viewed as a national achievement test and that NAEP objectives will be perceived as a national curriculum. These changes will be the result of using NAEP to make state-by-state comparisons. The importance of curriculum coherence is discussed, in regard to effective instruction and in regard to state comparisons. Four recommendations are made: (1) NAEP should be reorganized to facilitate state comparisons, preserve and enhance curriculum coherence, and encourage improvement in instruction and learning; (2) NAEP objectives should be revised and integrated into state and local curricula in ways which preserve and enhance curriculum coherence; (3) state and local education agencies should reach a consensus on which NAEP objectives should be used for state comparisons; and (4) reports of NAEP results should describe NAEP objectives and the links between results and objectives.

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178

ED279674

Proposals for Improving the NAEP Mathematics Assessment of Black Youth.

Davis, Josephine D.

27 Aug 1986

17p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC01 Plus Postage.

To assist in the development of policies to eliminate the subtle inequities which inhibit the mathematics achievement of many Black youths, it is suggested that the redesign of the National Assessment of Educational Progress (NAEP) mathematics assessment study Black students' opportunity to learn mathematics. Recommendations for the redesign of the NAEP mathematics assessment and its reporting formats are based on a cross-sectional study of mathematics achievement data on 14,289 Black, White, and Hispanic 17-year-old students from the third NAEP assessment. Achievement on the algebra or pre-algebra subtests was evaluated against mathematics course enrollment. Other variables studied included grade level, school racial composition, curriculum type, achievement level, race or ethnicity, and affective responses. Results indicated significant racial and ethnic differences in enrollment by curriculum (general versus academic) and in achievement. Schools' racial composition also appeared to affect achievement. Preliminary test item analysis suggests the need to use additional criteria in determining item bias for Blacks. Because it is a valuable database for research, it is strongly recommended that NAEP broaden its scope to include measures of the opportunity to learn mathematics as a standard variable and to report school achievement impacted by school culture, classroom processes, and significant others. It is further recommended that NAEP restructure cognitive items on which Black students perform poorly to explore the causes for these response patterns. Changes in NAEP's affective and background measures are also proposed.

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179

ED279673
The National Assessment of Reading: Past and Future Directions.
Curtis, Mary E.
1986
41p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC02 Plus Postage.

The National Assessment of Educational Progress (NAEP) survey of reading achievement is assessed, its objectives are discussed, and recommendations for future testing are made. It appears that a great deal has been learned about the nation's levels of reading achievment from the four NAEP reading assessments conducted from 1970 to 1984. NAEP objectives were designed to provide content validity, and were intended to change over the years to reflect current educational practices. However, the current focus on phonics instruction was not reflected in the recent, increasingly global objectives. The debate surrounding the hierarchical nature of reading skills are discussed. Three recommendations are made regarding future testing: (1) more complete information is needed about the kinds of tasks that 9-, 13-, and 17-year-olds can and cannot do; (2) knowledge and skills underlying reading performance should be measured; and (3) conclusions about preferred reading instruction should not be made without further data collection. Appendices include score reporting categories in 1970-71, 1974-75, 1979-80, and 1983-84; seven sample test items; and lists of reading objectives for each year of testing. Current categories of reading objectives are: comprehension of what is read, extension of comprehension, managing the reading experience, and placing a value upon reading.

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180

ED279672
The Cost of National and State Educational Assessments.
Cronin, Joseph M.
Aug 1986
17p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

The National Assessment of Educational Progress (NAEP) assessed three grade levels and 21-year-olds in the 1960's, at an annual cost of $6 million. By the early 1980's, adults were no longer tested and funds had decreased to $3.8 million. Other governmental departments, however, have also been funded for testing and a number of state testing programs have been implemented recently. New York State's comprehensive minimum competency testing program, like the NAEP's, cost $3.8 million annually. Test construction is very costly. The Council of Chief State School Officers recommends testing during grades 5, 8, and 11. NAEP tests grades 3, 7, and 11. Local school district testing programs generally have goals that differ from those of the state programs. Local boards use tests for purposes of diagnosis, proficiency testing, or ranking. In the 1970's the international project, IEA (International Association for Evaluation of Educational Achievement) became an attention-commanding project; however United States government officials are not encouraged to fully participate in IEA planning. Coordination of IEA and NAEP procedures could reduce costs. Some state programs use NAEP items for purposes of comparison. Costs for each state's testing programs can range from $105,000 to $525,000, depending on the number of subjects tested per year; total national costs could range from $5,250,000 to $25,250,000.

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181

ED279671
Assessing Skills and Thinking in Social Studies.
Cornbleth, Catherine
1986

22p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

A cognitive process approach is applied to this discussion of the nature and relationship of skills, thinking, and social studies knowledge. To make understanding explicit, the paper addresses: (1) the meaning of cognitive skills and their role in thinking; (2) generic versus specific skills; and (3) implications for the National Assessment of Educational Progress (NAEP). Critical thinking is a skill frequently associated with social studies learning. However, attempts to detail a task analysis of critical thinking skill have met with problems: It is difficult to define a constant concept of thinking; thinking is rarely a process of linear steps; thinking about one question tends to raise others; and thinking cannot be divided into pieces and reconstructed. Skills and thinking are not synonymous and should not be treated as such for assessment. Despite the assumption that thinking skills are generic and transferable from one subject to another, there is evidence that the development of thinking skills is highly knowledge dependent; the separation of subject matter content and thinking process is arbitrary and misleading. Social studies test items should assess either the application of a skill, or the selection and application of the appropriate skill. To assess critical thinking, assessment of thinking and not assessment of separate skills is needed. Test items should include social studies subject matter, and former NAEP items should be retained for comparative analysis.

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182

ED279670
Designing State Assessment Systems.
Cohen, Michael
Aug 1986
26p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC02 Plus Postage.

Guidelines for developing an ideal statewide educational assessment system are presented as one response to the redesign of the National Assessment of Educational Progress (NAEP). Emphasis is on the contribution NAEP can make to meet state needs. Core information which is useful to most states is discussed, assuming it will be directed toward policymakers and local educators. The state testing program should support the development and revision of educational policy, mobilize and sustain political support, and improve educational quality. This improvement may be accomplished by increasing the awareness of objectives, setting performance standards, providing incentives, and focusing accreditation procedures on quality. The testing program should focus on the school site level, include indicators in addition to academic achievement, rely on multiple measures, evolve over time, and focus on changes over time. The key components of useful assessment systems are annual school data profiles and a set of quality indicators. Suggested indicators which reflect long-term goals and effective schooling are listed. Public opinion, data collection, and state-by-state comparisons are also briefly discussed.

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183

ED279669
Recommendations on Writing Assessments for Future NAEPs.
Coffman, William E.
22 Sep 1986
7p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

These comments provide further details which expand upon the recommendations of the subcommittee on National Assessment of Educational Progress (NAEP) Writing. Three issues are discussed. The first concerns how objectives of assessment in writing ought to be stated. The 1984 objectives are stated in general terms without reference to what might reasonably be expected of individuals in a particular age group or at different levels of ability within age groups. They differ from earlier objectives by emphasizing process rather than product, a focus which does not provide the type of information desired by NAEP's audience. The second issue is the criteria for the selection of exercises for several different age and grade levels. The content of some of the items and some of the conditions under which tests were administered were not realistic. For example, writers, in real-life situations, are usually allowed access to resource materials and time to revise their work. The third area of concern is the reporting of results. Here, five recommendations are made: (1) replace the current Primary Trait and Global Rating scales with anchored rating scales; (2) provide more information relating responses to objectives; (3) examine the response patterns for pairs of items; (4) abandon the ARM scaling; and (5) examine the effects of dependencies across grouping categories on the magnitude of group differences.

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184

ED279668
What Is Meant by "Higher-Order Cognitive Skills."
Chipman, Susan F.
Sep 1986
43p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC02 Plus Postage.

This paper discusses higher-order cognitive skills, provides examples of appropriate test item content in various subject areas, and describes higher-level cognitive skills which might be tested by the National Assessment of Educational Progress (NAEP). Higher-order cognitive skills are said to be more difficult to measure than simpler skills; they involve the orchestration and practical use of the simpler skills, which are easier to teach and to assess. Domains of cognitve skill are discussed for mathematics, logic, computer programming, physics, scientific reasoning, reading, writing, history, and biology. Characteristics of human thinking are described; it is stated that test developers should be sensitive to human cognition, as well as to the nature of the skill being tested. It is concluded that there may be some very general higher-order cognitive skills such as problem solving, knowledge acquisition, and self-management and control of cognition. Puzzle problems with low requirements for prior specific knowledge might be considered for testing cognitive skills. Finally, research is seen as a valuable source of assessment techniques.

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185

D279667
School and Teacher Factors and the NAEP Reading Assessments.
Chall, Jeanne S.
1986
40p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC02 Plus Postage.

School and teacher factors associated with reading achievement are compared to items from the National Assessment of Educational Progress (NAEP) 1985 reading assessment. Significant factors which appeared in the literature included: methods and materials, time on task, difficulty level and high teacher expectation, teacher qualifications, student assessment; family contacts, and classroom management. Examination of the NAEP teacher questionnaires used for the 1983-84 assessment indicated that more emphasis was placed on writing than on reading. Items that addressed reading asked teachers about time on task, teacher excellence, and assessment and remediation. A number of recommendations are made: (1) NAEP should collect stronger data on school and teacher factors as they relate to student reading achievement; (2) more items should be included on reading instruction; (3) factors which contribute to reading success at specific age levels should be examined; (4) NAEP data should be used in reporting test results to schools and the public; and (5) terminology should reflect the distinction between lower-level basic skills in the lower grades and higher-level reading comprehension skills. Tables are included which list the various factors culled from research reviews and selected studies.

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186

ED279666
Scales and Other Problems in the NAEP Reading Assessment: Critical Comments.
Carroll, John B.
18 Aug 1986
41p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC02 Plus Postage.

Two major issues are addressed in this commentary on the National Assessment of Educational Progress (NAEP) reading assessment: the design of the reading proficiency scale and interpretation of test data; and the dimensionality of this scale and the possibility of supplying data on specific skill dimensions. An examination of NAEP data and the five levels indicated by the scale scores indicated problems in interpretation and reporting of test results. Controversies concerning the validity and measurement of reading subskills are discussed. Although the current NAEP reading scales are considered acceptable, several recommendations are made: (1) supplementary information on readability levels and grade placements should be provided for the Reading Proficiency Scale; (2) reports furnished to the public should express the variability features of assessment data; (3) proficiency in word decoding, vocabulary knowledge, and reading speed should be measured; and (4) although testing need not be extended to children under 9, testing of a representative sample of adults is recommended.

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187

ED279665
The National Assessment of Educational Progress in Social Studies.
Carlson, Ken
Aug 1986
22p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

This paper discusses the content of the social studies tests of the 1981-82 National Assessment of Educational Progress (NAEP). Selected social studies and citizenship items were administered to 3,200 students aged 9, 13, and 17 and to adults aged 26-35. Twelve sources describing the social studies tests were reviewed, particularly the Citizenship and

Social Studies Objectives and the Released Exercises, containing about one-fourth of the test items. The objectives were developed by 255 people, and resulted in 196 specific objectives in five major categories, demonstrating: (1) skills necessary to acquire information; (2) skills necessary to use information; (3) understanding of individual development and communication skills; (4) understanding of and interest in the ways humans organize, adapt to, and change their environment; and (5) understanding of and interest in the development of the United States. There were also 32 mid-level objectives, which are appended. Most of the objectives dealt with content, while some covered discourse, thinking, and values and attitudes. There was concern about content validity, since the categories were not evenly represented. In a number of cases, an argument could be made about the correct alternative from the multiple choice items.

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188

ED279664

Designing the National Assessment of Educational Progress to Serve a Wider Community of Users: A Position Paper.

Bock, R. Darrell

Aug 1986

32p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC02 Plus Postage.

Efforts have been made to increase the dissemination and use of data generated by the National Assessment of Educational Progress (NAEP). Potential users include those concerned with curriculum and methods evaluation, public policymakers, and researchers. NAEP can provide data for curriculum evaluation, including item analysis data which assist in item selection for student testing. Census-like reporting is useful in policy formulation, but this type of information requires estimation of attainment levels in individual pupils and not merely the aggregated responses of groups. There have been problems associated with use of NAEP data in educational research; for example, matrix sampling data were previously difficult to handle. Currently, individual scores are being provided in ways which can be analyzed by conventional statistical methods. It has also been difficult to use school and classroom data as the unit of analysis. A NAEP design which would be suitable for hierarchical regression analysis would expand the possibilities for secondary analysis. Item response theory scaling currently assists in longitudinal analysis of NAEP data. Ways to increase use of the data include the duplex design and rotation sampling of schools, resulting in more frequent sampling. Cooperation with state testing programs can help in providing comparable scores.

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189

ED279663
The Home Environment and School Learning.
Bloom, Benjamin S.
1986
9p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

Home environment factors which influence school learning were reviewed. Socioeconomic status (SES) has explained only about ten percent of the variance in achievement. Also, there is very little that can be done to change SES over a short period of time. Dave and Wolf studied what parents do, rather then who they are; they investigated the environmental process variables: family's work habits; academic guidance and support; stimulation; language development; and academic aspirations and expectations. These variables correlated highly (+.80) with achievement in grades 4-5. The Dave method of studying home environment rated 21 process variables on a nine-point scale, using in-home observation and parent interviews. Bloom used a 14-item checklist based on Dave's scale; its correlation with achievement in grades 4-6 was .60 to .70. The Dolan Home Educational Environment Scale correlated about .50 with elementary school achievement. It was recommended that the Bloom version of the Dave scale or Dolan's scales, rather than SES, be used by the National Assessment of Educational Progress (NAEP) to assess home environment. This is significant because not only schools and ability, but families, too, affect achievement.

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190

ED279224
The Education Indicators Project in the U.S. Department of Education.
Stern, Joyce D.
Apr 1986
28p.
EDRS Price - MF01/PC02 Plus Postage.

The progress of the indicators project of the U.S. Department of Education is reported as a follow-up to a 1985 Department of Education publication, " Indicators of Education Status and Trends," which attempted to identify those items that could be considered as significant indices of the health of education in the United States. In addition to a working definition of an indicator, three categories of indicators are identified: outcomes, resources, and context. The indicators project has involved identification and assessment, analysis, and development. Identification and assessment involves search for data that meet the working definition of an indicator. Examples of surveys/ studies that have produced indicators are considered, including the Fast Response Survey System, the National Assessment of Educational Progress, the Second International Mathematics Study, and the Gallup Poll. Examples of indicators that entail extensive analysis are also provided, including scores on the Scholastic Aptitude Test and the American College Testing Program. Development work of the indicators project has produced a new indicator, " school climate," and a major developmental effort has focused on postsecondary education indicators. Future directions for the indicators project are discussed. Appended is a summary of a November 1985 meeting of the Advisory Panel on Postsecondary Education and a list of advisory panel members. Tables and figures are provided.

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191

ED278718

A Pilot Study of Higher-Order Thinking Skills Assessment Techniques in Science and Mathematics—Part I and Pilot-Tested Tasks—Part II. Final Report.

Blumberg, Fran; And Others

National Assessment of Educational Progress, Princeton, NJ. Nov 1986

534p.

EDRS Price - MF02/PC22 Plus Postage.

In the 21st century, the population will need to possess basic skills in the areas of communication and higher problem-solving as well as have scientific and technological literacy; however, results from assessments by the National Assessment of Educational Progress (NAEP) have indicated weak student performance in the area of thinking skills, making inferences from printed material, and interpreting the meaning of scientific data. The educational community has called for increased emphasis on problem-solving and higher order skills in NAEP's 1985-86 assessment. The goal of a project, as funded to investigate these thinking skills, was to develop and test a variety of measures for use in a future national assessment. Part 1 of this pilot project developed and assessed the quality and appropriateness of certain innovative tasks and procedures to measure the higher-order thinking skills used in science and mathematics. First, a conceptual framework of higher-order skills used in science and mathematics, then prototype exercises, including "hands-on" activities, were developed. Some exercises were adapted from those used successfully by the United Kingdom's Assessment of Performance Unit in England, Wales, and Northern Ireland. These efforts resulted in a set of tasks which asked the students to "think" about a variety of relationships in mathematics and science. Three categories of administrative formats were used: (1) group activities to intact classes, (2) station activities consisting of "hands-on" tasks, and (3) full investigations which were administered to individual students. Almost 1,000 students in grades 3, 7, and 11 from 12 districts throughout the country participated. Scoring guides were developed, and student responses were categorized, entered into the computer, and analyzed. Results showed that students were responding to the tasks, and data conformed to expectations about basic developmental trends in thinking skills. In Part II, the pilot-tested tasks are presented individually. The group tasks are presented first, followed by the station activities, and then the individually administered full investigations. The presentation for each task consists first of the task as the students saw it; followed by directions for the administrator and the observation checklist, where these are pertinent; a description of the apparatus; the scoring guide with illustrative examples of each score level; and summary comments about the task. The data on which the comments are based included student performance on each task by grade and by sex and the correlation coefficient between the number right on the mathematics and science items and student data for most of the tasks. Separate analyses by sex were conducted to determine if there were any obvious gender biases in the tasks. No tests for significance were done on the gender results.

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192

ED278156

Utah Educational Quality Indicators. The Sixth in the Report Series: "How Good Are Utah Public Schools."

Nelson, David E.

Utah State Office of Education, Salt Lake City. Jan 1986

118p.

EDRS Price - MF01/PC05 Plus Postage.

Since 1967, the Utah State Office of Education has compiled and reported pertinent information concerning statewide student performance. This report, the sixth in the "How Good Are Utah Public Schools?" series, summarizes results from a variety of ongoing and special studies. Since 1975, statewide assessment programs have encompassed both academic and nonacademic performance measures for representative samples of nearly 8,000 fifth and eleventh graders every three years, in approximately 100 schools. The introduction to the study explains the development of quality indicators in the context of educational reform and Utah's educational goals. The next five sections compare Utah students' performance on the

American College Testing Program (ACT), the Scholastic Aptitude Test, the preliminary Scholastic Aptitude Test, the Comprehensive Tests of Basic Skills, and the Advanced Placement Program with national norms. Section VII discusses adult educational attainment for Utah, and Section VIII profiles courses taken by Utah senior high school students. Section IX discusses National Assessment of Educational Progress data, comparing Utah students' performance to national and international trends. Section X presents an overview of findings from each of the preceding sections. The summary and conclusions provide additional perspectives on performance trends and their implications. Discussion is supported throughout with numerous "exhibits."

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193

ED277072
Television: What Do National Assessment Results Tell Us?
nderson, Bernice; And Others
National Assessment of Educational Progress, Princeton, NJ. Dec 1986
20p.
EDRS Price - MF01/PC01 Plus Postage.

A study examined the relationship between television viewing habits and reading achievement of students in grades 4, 8, and 11. Students, in addition to responding to the achievement and background exercises, answered three questions about their television viewing habits. Analysis of results showed that at all three grade levels, students who watched television six hours or more were much poorer readers than those who watched less. At grade 11, students who watched television two hours or less each day were better readers than those who watched three to five hours. This pattern follows at grades 4 and 8, although the differences were not as great. Results also indicated that the negative relationship between excessive television watching and reading performance is worst for white students and for students with well-educated parents. These results suggest that parents should modify their own television viewing behavior, monitor their children's television viewing, teach children to make intelligent choices, watch with their children, and advocate more responsible television programming. Educators should teach parents about the negative effects of television viewing, teach children how to evaluate what they see, incorporate excellent programs into instruction, and develop and suggest more positive after-school activities.

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194

ED276980
Homework: What Do National Assessment Results Tell Us?
Anderson, Bernice; And Others
National Assessment of Educational Progress, Princeton, NJ. Dec 1986
17p.
EDRS Price - MF01/PC01 Plus Postage.

National Assessment of Educational Progress (NAEP) data indicated a positive relationship between the amount of time spent on homework and reading achievement in grades 4, 8, and 11. This conclusion represents one segment of the findings of the 1983-84 National Assessment, which focused on reading and writing and was administered to approximately 100,000 students across 30 states. Specifically, students were asked how much time they spent on homework yesterday. Findings showed that almost two-thirds of the students reported spending time on homework, with little variance among racial/ethnic groups. This finding seemed related to more homework being assigned and reflected an increase as compared to 1980 NAEP results. Students who received homework assignments and did them tended to read at higher proficiency levels than students who did not have homework or who did not complete assigned work. Results showed that the more time students spent on homework assigned, the better they read; this relationship was clearest at grade 11. Seventy percent of the students who spent more than two hours on homework were found to watch two hours or less of television. Based on these results, NAEP recommended that: (1) students need parental support to complete assignments, (2) teachers and parents should set clear goals for homework assignments, and (3) homework policies should be consistent with other school goals.

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195

ED276979
Mothers Working Outside the Home: What Do National Assessment Results Tell Us?
Anderson, Bernice; And Others
National Assessment of Educational Progress, Princeton, NJ. Dec 1986
18p.
EDRS Price - MF01/PC01 Plus Postage.

National Assessment of Educational Progress (NAEP) data show that children in grades 4, 8, and 11 whose mothers work outside the home read better than children whose mothers do not work outside the home--but the difference is small. This conclusion represents one segment of the findings of the 1983-84 National Assessment, which focused on reading and writing and was administered to approximately 100,000 students across 30 states, and which for the first time asked students if their mothers worked outside the home. The findings were consistent with previous research studies indicating that children's reading achievements are unaffected by maternal employment alone. Related factors found to affect the reading performance of students included mother's level of education, amount of household income, and early education. Specifically, assessment results indicated that (1) more than half of the students reported their mothers worked outside the home; (2) students with mothers working outside the home performed better in reading, possibly due to the relationship between mothers who work outside the home and traditional socioeconomic advantages, for example, higher education and income; (3) mothers who work outside the home have higher levels of education and students whose parents have more education achieve higher reading scores; and (4) more students whose mothers work outside the home attended nursery school, which is associated with better reading performance.

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196

ED276836
Our Literacy Report Card. Research in Brief.
Bradshaw, Jim; Paulu, Nancy, Ed.
Office of Educational Research and Improvement (ED), Washington, DC. Nov 1986
3p.
EDRS Price - MF01/PC01 Plus Postage.

Although the majority of today's young adults meet or surpass the "literacy" standards of 25 years ago, they often lack the level of literacy needed to meet current demands. The National Assessment of Educational Progress studied a nationally representative sample of 3,600 young American adults, aged 21 to 25, to determine how well they could perform real work survival skills. While the overwhelming majority of young adults adequately performs tasks at the lower levels of proficiency, sizable numbers appear unable to do well on tasks of even moderate complexity. Findings included the following: (1) about 80 percent were unable to use a bus schedule; (2) approximately 63 percent could not follow directions using a map; (3) only about 27 percent could interpret a lengthy newspaper feature story; (4) about 28 percent were unable to write a letter protesting a billing error; (5) about 3 percent could not enter personal information on a job application; (6) about 21 percent were unable to locate the gross pay-to-date on a pay stub; (7) about 16 percent had trouble completing an address on an order form; and (8) about 34 percent had difficulty summarizing in writing an argument made in a lengthy newspaper editorial. On average, black young adults performed at levels significantly below white young adults, with Hispanics about midway between the groups. The report concluded that more appropriate intervention and prevention strategies must be developed to remedy these deficits.

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197

ED275771
The Federal Role in Encouraging State-by-State Achievement Comparisons.
Katzenmeyer, Conrad G.
Office of Educational Research and Improvement (ED), Washington, DC. Apr 1986
8p.
EDRS Price - MF01/PC01 Plus Postage.

With the growing interest in comparing student achievement state by state, there is a need to develop better techniques for making such comparisons. Approaches available now, particularly the use of Scholastic Aptitude Test (SAT) and American College Test (ACT) scores, have obvious shortcomings but nonetheless continue to be prominent because there is nothing more defensible. In this paper, the role of the federal government in encouraging new approaches is discussed, particularly the exploration of the use of state assessments in cross-state comparisons, and the extension of National Assessment of Educational Progress (NAEP) to a nationally representative sample for this purpose.

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198

ED275701
Literacy: Profiles of America's Young Adults. Final Report.
Kirsch, Irwin S.; Jungeblut, Ann
National Assessment of Educational Progress, Princeton, NJ. Sep 1986
436p.
EDRS Price - MF01/PC18 Plus Postage.

This document provides the final report of a survey conducted by the 1985 National Assessment of Educational Progress (NAEP) to assess the literary skills of America's young adults. Chapter I provides the rationale for conducting a study of literacy proficiencies of young adults aged 21 to 25. The purpose and conceptual framework of the research are set against a brief discussion of prior assessment efforts. Chapter II reviews the instrumentation and methodology (focusing on the assessment design), the data collection activities, the scoring and entry of data, and the scaling of the simulation tasks. Major sections of Chapter III deal with the dimensionality of literacy skills, scaling the adult literacy tasks, and describing and anchoring the literacy scales. Chapter IV profiles proficiencies for the total group of young adults assessed on each of three literacy scales. Chapter V compares young adults with in-school populations and describes performance at five levels of reading proficiency. Young adults are characterized in Chapter VI using three variables as a framework--race/ethnicity, parental education, and respondent's education. Chapter VII presents analyses investigating the relationship among demographic characteristics, educational variables, literacy practices and the four literacy outcome measures. The oral-language assessment is described in Chapter VIII. Appendices contain: (1) sampling, weighting, and sample error estimation; (2) scaling and scoring procedures; (3) data; (4) the background and attitude questionnaire; and (5) a list of consultants used to develop and review assessment and exercises.

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ED275692
Literacy: Profiles of America's Young Adults.
Kirsch, Irwin S.; Jungeblut, Ann
National Assessment of Educational Progress, Princeton, NJ. [Sep 1986
79p.
EDRS Price - MF01/PC04 Plus Postage.

In 1985 the National Assessment of Educational Progress (NAEP) assessed the literacy skills of America's young adults. The survey stressed the complexity and diversity of literary tasks in American society rather than using a simplistic single standard for literacy. NAEP convened panels of experts whose deliberations led to this definition of literacy: "using printed and written information to function in society, to achieve one's goals, and to develop one' s knowledge and potential." NAEP drew a nationally representative household sample of 21- to 25-year-olds living in the 48 contiguous states in the United States. Approximately 3,600 young adults in 40,000 households were interviewed and were assessed in performing tasks such as: (1) reading and interpreting prose; (2) identifying and using information located in documents; and (3) applying numerical operations to information contained in printed material. Major findings showed that while the overwhelming majority of young adults adequately perform tasks at the lower levels on three literacy scales (prose, document, and quantitative literacy), sizeable numbers appear unable to do well on tasks of moderate complexity. Included in the report are: (1) an overview and profiles of the estimated prose, document, and quantitative literacy proficiency of young adults at four levels of difficulty; (2) comparisons of young adults with in-school 17-year-olds; (3) characteristics of the young adults by race/ethnicity, years of education, and parental education; (4) relationships of background characteristics to performance levels on the proficiency scales; (5) oral language results for selected samples; and (6) a final section providing a summary and conclusions.

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200

ED275540

An Implementation Study: An Analysis of Elementary Student and Teacher Attitudes toward Science in Process-Approach vs. Traditional Science Classes.

Kyle, William C.; And Others
Mar 1986
23p.
EDRS Price - MF01/PC01 Plus Postage.

In anticipation of House Bill 246 (now Texas Administrative Code Chapter 75) which requires an inquiry-based, process-approach to the teaching of science, the Richardson Independent School District established the Elementary Science Pilot Project and adopted the Science Curriculum Improvement Study (SCIS) as part of their new K-6 Science through Discovery curriculum. This paper reports on a study which attempted to assess and analyze the attitudes toward science of teachers and students in SCIS classes as compared to teachers and students in non-SCIS classes. A post-test-only control group design was used for this study. The Preferences and Understandings instruments (student and teacher versions) were administered; these instruments are attitudinal measures whose items are referenced from the 1977 Third Assessment of Science of the National Assessment of Educational Progress (NAEP). It was found that SCIS and non-SCIS teachers share similar attitudes toward science. After experiencing one year of an inquiry-oriented, process-approach science curriculum, highly significant attitudinal differences toward science and science classes were observed between SCIS and non-SCIS students.

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201

ED274684

Foundations of Literacy: A Description of the Assessment of a Basic Knowledge of United States History and Literature.

National Assessment of Educational Progress, Princeton, NJ. [1986
23p.
EDRs Price - MF01/PC01 Plus Postage.

How much do 17-year olds know about U.S. history and literature? The National Assessment of Educational Progress (NAEP) has been gathering information about the educational attainment of American students in a variety of subject areas, but no study had focused solely on students' basic knowledge of American history and their familiarity with major authors, themes, and characters of Western literature. An assessment probe was designed to supply systematic information about the extent to which this knowledge is acquired by students in American schools. An initial draft of the assessment probe, developed by staff members of NAEP, was reviewed by almost 100 educators to ensure that the assessment topics did not diverge from current teaching practice. The final draft reflects the suggested changes. An assessment of the literacy of 17-year-olds included U.S. history and general literature because it was felt that literacy includes not only communication skills but also knowledge about the variety of topics that form the basis of dialogue and information sharing. The National Commission on Excellence in Education named history and literature among its new basics. The U.S. history topics are arranged by chronological periods: before 1763; 1763-1815; 1815-1877; 1877-1920; 1920-1945; and 1945-present. Care was taken to address topics relevant to political history, women's history, Black history, labor history, technology, geography, immigration, and foreign policy. Criteria for considering certain works of literature as fundamental to our culture are given for the following genres: (1) novels, short stories, and plays; (2) myths, epics, and Biblical characters and stories; (3) poetry; and (4) nonfiction.

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202

ED273994
The Writing Report Card: Writing Achievement in American Schools.
Applebee, Arthur N.; And Others
National Assessment of Educational Progress, Princeton, NJ. Nov 1986
114p.
EDRS Price - MF01/PC05 Plus Postage.

Based on the National Assessment of Educational Progress (NAEP) 1984 assessment of the writing achievement of American school children, this report presents national and demographic subgroup achievement results for students in grades four, eight, and eleven, and discusses students' attitudes toward writing and instruction. The first chapter describes the tasks and evaluation criteria used in the study and highlights results of the study, including the following: (1) although many students appeared to know the basic elements of analytic writing, such writing was difficult for students in all grades; (2) while most students could express their points of view in persuasive writing, many had difficulty providing evidence for those viewpoints; (3) students had less difficulty with tasks requiring short responses based on personal experience; (4) students found it moderately difficult to write well-developed stories; (5) home environment is related to writing achievement; (6) students who indicated writing three or more reports and essays during a 6-week period had higher achievement levels than students who reported not writing during that time period; (7) students' positive attitudes toward writing deteriorate steadily across the grades; (8) students reported that their teachers are more likely to mark mistakes than to show an interest in what they write or to make suggestions for the next paper; and (9) content area writing increases between grades four and eight, and decreases again in senior high school. The next four chapters provide specific achievement data by grade level for informative, persuasive, and imaginative writing, and for writing performance among various demographic subgroups. The remaining three chapters focus on students' responses to questions concerning writing and writing instruction, specifically, their values and attitudes toward writing, how they manage the writing process, and what they write and the help they receive.

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203

ED273683
A Framework for Assessing Computer Competence: Defining Objectives.
National Assessment of Educational Progress, Princeton, NJ. [1986]
43p.
EDRS Price - MF01/PC02 Plus Postage.

Computer skills objectives have been developed for the 1986 National Assessment of Educational Progress (NAEP). These items will be administered to a large number of American students aged 9, 13, and 17 in grades 3, 7, and 11. For this first national assessment of computer skills, it was necessary to consider the existing expertise of school staff, the current curriculum, the rapidly changing nature of computer science, and educators' different definitions of computer competence. Generally, educators agree that students need an exposure to computing that enables them both to experience the power of computing and to use that power to solve significant and interesting problems. Measurement objectives involve both paper-and-pencil tests of cognitive ability, as well as the practical ability to use a computer to solve problems. Three categories of cognitive objectives include knowledge, operation, and problem solving and design. Eight applications areas include word processing, database management, laboratory instrumentation, telecommunications, graphics, music generation, spreadsheets, and models and simulations. Programming objectives involve elements of a language; structures of data and control; and program planning, design, and testing. A number of items are illustrated. Five items are also included to illustrate attitudinal objectives.

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204

ED273682
Math Objectives, 1985-86 Assessment.
National Assessment of Educational Progress, Princeton, NJ. 1986
25p.
EDRS Price - MF01/PC01 Plus Postage.

The National Assessment of Educational Progress (NAEP) collected data on the mathematics performance of 9-, 13-, and 17-year old Americans in 1973, 1978, and 1982. An additional assessment in grades 3, 7, and 11 is planned for 1986. Educational objectives to be used in the 1986 assessment were contributed, reviewed, and revised by a committee of educators. Emphasis was placed on higher-level, critical thinking skills. The objectives were grouped into the following categories, which are described in this document: (1) processes-routine application; understanding; problem solving and reasoning; skills; and knowledge; (2) content-fundamental methods; discreet mathematics; data organization and interpretation; measurement; geometry; relations; functions; and algebraic expressions; and numbers and objectives; and (3) attitudes--mathematics in school; mathematics and oneself; mathematics and society; mathematics as a discipline; and attitudes toward computers. Objectives in five categories concerning the use of calculators are also illustrated: routine computations; more difficult computations; understanding concepts; exploration; and applications and problem solving.

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205

ED273681
Science Objectives, 1985-86 Assessment.
National Assessment of Educational Progress, Princeton, NJ. 1986
39p.
EDRS Price MF01/PC02 Plus Postage.

In 1985-86, the National Assessment of Educational Progress (NAEP) will undertake the fifth national assessment of science knowledge, skills, and attitudes in 9-, 13-, and 17-year old Americans. The science objectives have been developed and reviewed by committees of scientists and educators. The objectives presented in this document are grouped into three categories: (1) content--life sciences; physics; chemistry; earth and space sciences; history of science; and nature of science; (2) context--scientific; personal; societal; and technological; (3) cognition--knowledge; application; and integration, and (4) attitudes--toward science classes; career and educational objectives; socioscientific responsibility; science as a personal tool; value of science; societal issues; and experiences in science. A number of topics are presented with an indication of their appropriateness for testing students aged 9, 13, or 17. Ten sample questions are also appended.

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206

ED273680

Writing: Trends Across the Decade, 1974-84.

Applebee, Arthur N.; And Others

National Assessment of Educational Progress, Princeton, NJ. [1986

86p.

EDRS Price - MF01/PC04 Plus Postage.

The National Assessment of Educational Progress (NAEP) evaluated the writing ability of American students in 1974, 1979, and 1984. Data from 95,000 students were examined for trends over this 10-year period. Writing tasks, including informative, persuasive, and literary or imaginative writing were administered to national samples of students aged 9, 13, and 17. The results indicated that, in general, achievement in 1984 seemed to be no better than it was in 1974. Achievement trends for Black, Hispanic, and White subgroups, as well as those defined by geographic region or sex, were similar to nationwide trends. From 1979 to 1984, students' writing skills showed improvement, particularly at ages 13 and 17. However, achievement remained low in 1984; only 38 percent of the 17-year olds produced a well-organized and detailed descriptive essay, and only 20 percent wrote an effective persuasive letter. Imaginative writing improved for all ages. Results also indicated that although greater attention was focused on writing instruction in 1984 than in 1974, the actual amount of writing done by students remained about the same. Data tables, graphs, a summary of NAEP procedures, and students' writing samples showing different levels of expertise are included.

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207

ED272150

The Condition of Information on Education. Statement Made before the Select Education Subcommittee on Education and Labor, House of Representatives.

Chelimsky, Eleanor

General Accounting Office, Washington, D.C. 19 Feb 1986

26p.

EDRS Price - MF01/PC02 Plus Postage.

This document reports preliminary conclusions from the General Accounting Office's (GAO) assessment of the effects of existing federally produced information on education in the United States which focused on the quality, availability, and dissemination of information on selected education topics. Issues guiding the GAO's work included: (1) how the federal investment in the collection, analysis, and dissemination of education information has changed over time; (2) the consequences of these changes; and (3) the implications of these changes for congressional oversight. Changes in the availability of funding for producing information on the condition of education are also reported, and implications of these changes both for generating information and for making it available, now and in the near future, are discussed.

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208

ED269420
Assessment of the Dimensionality of NAEP Year 15 Reading Data.
Zwick, Rebecca
Educational Testing Service, Princeton, N.J. Jan 1986
55p.
EDRS Price - MF01/PC03 Plus Postage.

Reading test data from the National Assessment of Educational Progress (NAEP) were scaled using the unidimensional item response theory model. Data were collected for students aged 9, 13, and 17. To determine whether the responses to the reading items were consistent with unidimensionality, four different methods were applied: (1) principal component analysis of phi and tetrachoric correlation matrices; (2) principal component analysis of the image correlation matrix, a method based on the work of Guttman; (3) R. D. Bock's full-information factor analysis; and (4) P. R. Rosenbaum's test of unidimensionality, monotonicity, and conditional independence. Balanced incomplete block (BIB) spiralling was used with this year's NAEP to assign test items to booklets. This permitted the estimation of inter-item correlations, but resulted in an unusual pattern of missing data. Results from the analyses conducted for each age group were different from the analysis of the 25 items administered in all three samples. It was concluded that it was not unreasonable to regard the reading items as measures of a single dimension of reading proficiency.

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209

ED267389
Television and Reading: A Research Synthesis.
Neuman, Susan B.
Apr 1986

91p.
EDRS Price - MF01/PC04 Plus Postage.

Drawing on communications, psychological, and educational studies, this paper examines television's influence on reading performance and school achievement. The first section of the paper reviews and synthesizes major studies dealing with the introduction of television in a community and with correlations between television use and school achievement, pointing out that many of the studies have flawed methodologies and weak links between theory and methodology. The second section of the paper synthesizes the results of eight statewide reading assessments and a secondary analysis of the 1984 National Assessment of Educational Progress using hypotheses based on four theories of displacement (the idea that watching television replaces other activities in children's lives). It concludes that television viewing is associated with a different set of needs and gratifications than reading. The report includes extensive tables of data and eight pages of references.

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210

ED267106
Student Achievement in New York State, 1984-85.
New York State Education Dept., Albany. Div. of Educational Testing. Jan 1986
22p.
EDRS Price - MF01/PC01 Plus Postage.

This report provides a record of student achievement for the State of New York in the 1984-85 school year. It brings together a variety of achievement indicators with a clear focus on knowledge and higher-order skills. Three types of achievement data are presented. One consists of scores obtained on New York State (NYS) tests. These scores may be used to analyze achievement trends over a period of years or to compare schools or school districts within the State. Included in this category are the Pupil Evaluation Program tests, the Regents competency tests, and the Regents examinations. In addition to State test results, selected graduation data are also provided. The second type of data source is the National Assessment of Educational Progress. The third source is a by-product of national programs that identify outstanding students. These programs permit comparisons between NYS students and students in other states or in the United States as a whole. Two programs of the College Entrance Examination Board--the Scholastic Aptitude Test and the achievement tests--provide this data. Data are also obtained from the Advanced Placement Program, the National Merit scholarship competition, and the Westinghouse Science Talent Search.

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211

EJ354666
Gender Differences in National Assessment of Educational Progress Science Items: What Does "I Don't Know" Really Mean?
Linn, Marcia C.; And Others
Journal of Research in Science Teaching, v24 n3 p267-78 Mar 1987
Available From: UMI

Discusses the gender differences revealed on the science content items of the National Assessment of Educational Progress Science Assessment. Examines explanations for the differences, including differential prior instruction, differential response to uncertainty, differential response to figurally presented items, and different attitudes toward science.

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212

EJ353293
Effects of Behavioral Disability Labels, Writing Performance, and Examiner's Expertise on the Evaluation of Written Products.
Graham, Steve; Leone, Peter
Journal of Experimental Education, v55 n2 p89-94 Win 1987
Available From: UMI

The influence of disability labels, writing behavior of the person labeled, evaluator's expertise, and the interaction between these variables on the scores assigned to children's writing was examined. Disability labels did not affect the score, but the quality of writing and the examiner's expertise had a significant influence.

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213

EJ352255
Test Results Provide Data Useful to Educators Planning to Improve Schools.
Lapointe, Archie
NASSP Bulletin, v71 n497 p73-78 Mar 1987
Available From: UMI

Reviews the range of data gathered by the National Assessment of Educational Progress in 1984 concerning the reading and writing levels of 11th-graders. Discusses observable trends, differences between white and minority student scores, student perceptions about their reading and writing skills, and implications of the data for educational planning.

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214

EJ352253
A National Census of Educational Quality—What Is Needed?
Lerner, Barbara
NASSP Bulletin, v71 n497 p42-44,46-52,54-58,60 Mar 1987
Available From: UMI

Examines the extent and nature of America's need to know whether the nation's educational outlook is improving, considers the contributions of the Scholastic Aptitude Test and the National Assessment of Educational Progress to the information effort, and proposes a more effective testing system to be administered by the Census Bureau.

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215

EJ351587
NEH Places Renewed Emphasis on History.
Agresto, John
OAH Magazine of History, v2 n2 p12-13,24 1987
Available from: UMI

Recognizes the decline of history instruction and reports the results of the recent pilot test of the history knowledge of 17-year-old high school students by the National Assessment of Educational Progress. Lists the various projects of the National Endowment for the Humanities designed to strengthen United States History instruction.

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216

EJ351454
Test Science, Not Reading.
Rakow, Steven J.; Gee, Thomas C.
Science Teacher, v54 n2 p28-31 Feb 1987
Available From: UMI

Reviews some of the ways researchers estimate readability with a focus on multiple choice test items in science. Presents criteria to consider for minimizing readability problems in test items. Examines samples from the National Assessment of Educational Progress test bank for readability.

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217

EJ349124
Classroom Instruction and Tests: What Do We Really Know About the Link?
Rudman, Herbert C.
NASSP Bulletin, v71 n496 p3-4,6-10,12-14,16-18,20-22 Feb 1987
Available From: UMI

Teachers concerned about excessive testing may be depriving themselves of useful information provided by standardized achievement tests and their own exams. Teachers tend to separate testing from teaching. This article explores the relationship among data collection, curriculum planning, and instruction and gauges the impacts of mandated assessment programs. Includes 68 references.

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218

EJ346300
How Well Do Our Children Write.
Ryan, Gloria
PTA Today, v12 n3 p27 Dec-Jan 1987

This article summarizes findings of the National Assessment of Educational Progress which surveyed the writing skills of 95,000 students aged 9, 13, and 17 in 1974, 1979, and 1984.

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219

ED281162
Learning to Be Literate in America: Reading, Writing, and Reasoning. The Nation's Report Card.
Applebee, Arthur N.; And Others
National Assessment of Educational Progress, Princeton, NJ. Mar 1987
52p.
EDRS Price - MF01/PC03 Plus Postage.

Intended for educators, policymakers, and anyone concerned with the nation's reading skills, this booklet draws on four recent reports in the Nation's Report Card series, which are based on findings of the National Assessment of Educational Progress (NAEP). The first chapter discusses two important components of literacy--the ability to achieve a surface understanding of written materials and the ability to reason effectively about one's reading and writing. NAEP results are briefly discussed as a

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basis for the second chapter, which presents an overview of literacy development in America. The third chapter focuses on those who are at risk because of poor literacy skills, particularly children and young adults from minority groups and children without home support for literacy. The fourth chapter discusses the impact that an early exposure to print, appropriate instruction and homework can have on literacy skills. The final chapter explores two important initiatives for educators, policymakers, and the nation: (1) the at-risk population must be provided with targeted help to ensure that it has the opportunity to develop the literacy skills necessary for full participation in this society, and (2) educational approaches must be modified so that all children learn to reason more effectively about what they read and write. Recommendations derived from these initiatives are outlined for policymakers, administrators, and teachers. Graphs and statistical data are included.

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220

ED280068

National Assessment of Educational Progress Writing Proficiency: 1983-84 Catholic School Results and National Averages. Final Report.

Lee, Valerie E.
National Catholic Educational Association, Washington, D.C. 1987
30p.
EDRS Price - MF01/PC02 Plus Postage.

Intended to enable Catholic educators to evaluate and compare the writing progress of their students to that of the nation as a whole, this report presents writing achievement data of Catholic school students in grades 4, 8, and 11, assessed in 1983-84 by the National Assessment of Educational Progress (NAEP). A summary of the findings of the NAEP Reading Report, a complementary study, is presented and discussed in terms of a larger school-based context. The first of three sections reporting NAEP writing results presents comparisons based on the following factors in student' background: demographic characteristics, parental education, and residential location. The second section provides overall score comparisons, while the third section analyzes the writing proficiency scores in terms of grade level, school grouping, and racial/ethnic group. The major findings derived from these comparisons indicate that (1) writing scores in both types of schools are not very high, on average; (2) Catholic school students write better than the national average at all three grade levels; (3) students gain more writing skills in late elementary and middle school than they seem to during secondary school; (4) on average, girls are considerably better writers than boys in both types of schools and across all grade levels; and (5) minority students (Black and Hispanic) score considerably below White students in writing in both type of schools.

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ED280054
The Time Has Come.
Maxwell, John C.
National Council of Teachers of English, Urbana, Ill. Apr 1987
3p.
EDRS Price - MF01/PC01 Plus Postage.

The report by the National Assessment of Educational Progress entitled "Poor Writing Performance Blamed on Scant Writing Practice" makes it clear that little progress has been made in the improvement of students' writing. This is true in part because the conditions for teaching writing are unsatisfactory. The time has come to undertake a major series of efforts to alter public and administrative attitudes on the matter of class size, teacher load, and other circumstances that have negative effects on the teaching of writing. The headquarters staff at the National Council of Teachers of English, in cooperation with its Standing Committee on Affiliates, has been developing materials to launch public relations efforts on issues that affect the teaching of English. Research shows a need for radical reduction in class size and radically different methods of instruction. Professionals in the field of English need to speak out loudly on the issues of class size, workload, and the general conditions for teaching writing.

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222

ED279700
Issues in Indexing Functional Literacy.
Sticht, Thomas G.
27 Feb 1987
20p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

This paper explores some of the issues involved in developing an index of functional literacy that can serve diagnostic purposes. In 1985, Secretary of Education William J. Bennett outlined principles for the National Assessment of Educational Progress (NAEP), including a principle calling for NAEP to " develop an index of functional literacy that is consistent over time and applicable to the adult population as well as to children of school age." Two major issues must be dealt with in indexing functional literacy: (1) the nature of literacy; and (2) societal demands for literacy. The issue of literacy as knowledge, skill, and information processing with the written language and other graphic tools of thought and communication underlies many of the problems in the assessment of literacy and functional literacy. Presently, neither NAEP nor any other assessment conceptualizes these different aspects of cognition and uses them for designing tests to reveal contributions of these different facets of ability to the performance of literacy tasks. The determination of the demands of society produces the major controversies surrounding the assessment of literacy. It is difficult to develop an index of functional literacy that can be used diagnostically with precision.

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ED279698
Early Beginnings, Success and Failure in Teaching Young Children to Read: Some Abiding Questions and Intriguing Possibilities.
Smethurst, Wood
23 May 1987
25p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.
EDRS Price - MF01/PC01 Plus Postage.

Questions pertaining to beginning reading, success, and failure are addressed. The issues of concern are: (1) Wher reading begins? (2) What preschool activities seem to help certain children succeed as readers? (3) What characteristics and conditions are associated with reading failure in first grade? (4) What early experiences might help children avoid or minimize reading failure? and (5) Just as insurance companies can estimate actuarially an individual's risk of having an automobile accident, can a similar technology be developed to estimate a child's risk of reading failure? Answers to these questions are explored through available literature, history, and research. It is concluded that the National Assessment of Educational Progress (NAEP) could provide the needed large-scale, carefully sampled, designed, and controlled assessment of risk factors across all segments of the preschool population. Research based on NAEP might lead to more confident and accurate predictions that a given child is at risk to fail. If we know with some assurance that this child is likely to fail, it might be possible to design a way to intervene so as to avoid or minimize the devastating effects of reading failure.

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ED279694

Understanding Achievement and Acting To Produce It: Some Recommendations for NAEP.

Resnick, Daniel P.; Resnick, Lauren B.

19 Jan 1987

10p. One of 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report.

EDRS Price - MF01/PC01 Plus Postage.

Recent developments in the National Assessment of Educational Progress (NAEP) have addressed criticisms of previous assessments and have focused on state education departments as the major clients for test results. NAEP currently indicates progress in academic learning but does not define which aspects of schools are responsible for successes and failures. Recent reports indicate that NAEP plans to assess the association of input variables and mediating variables and school performance, in order to make the program more useful to policymakers. Sophisticated methods such as path analysis and structural modeling will permit many variables to be analyzed simultaneously. The variables to be studied should be actionable or practical to carry out, should reflect a reasonable theory about what matters in producing achievement, and should specify a time scale of expected effects. Actionable variables include teacher educational background and salary, instructional time, textbooks, class size, classroom homogeneity, homework, tracking, and courses taken. Mediating and interacting variables include attitudes, social background, and academic ability. Additional attention to data analysis is suggested as the most important of the recommendations. The appendix summarizes criticisms of NAEP and its current plans.

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ED279662

The Nation's Report Card: Improving the Assessment of Student Achievement. Report of the Study Group. With a Review of the Report by a Committee of the National Academy of Education.

Alexander, Lamar; James, H. Thomas; Glaser, Robert

National Academy of Education, Cambridge, MA. 1987

82p. For 46 papers commissioned by the Study Group on the National Assessment of Student Achievement and cited in Appendix B to this final report. See Index 5 of this bibliography: The Nation's Report Card - Commissioned Papers.

EDRS Price - MF01/PC04 Plus Postage.

Recommendations of the Study Group on the National Assessment of Educational Progress (NAEP) are summarized in this report. The report is then reviewed by the National Academy of Education. The recommendations are to: (1) maintain NAEP's continuity; (2) assess the core curriculum; (3) focus on transitional grades (4, 8, and 12) and sample out-of-school 17-year-olds, adults and private school students; (4) create an independent Educational Assessment Council, with members to be appointed by the Secretary of Education; (5) provide for add-on and school district assessments; (6) assess and provide for add-on assessment of private school students; and (7) increase federal funding to 20 to 30 million dollars per year (approximately five times the present amount). The Study Group strongly recommends that achievement data be collected on each state and the District of Columbia and that state and local assessments be linked with NAEP. Curriculum areas to be tested include higher order thinking skills; reading, writing and literacy; mathematics, science, and technology; history, geography, and civics; and special topics which are assessed occasionally. Recommendations for measurement include computer assisted testing and scaling. The National Academy of Education supports the conclusions of the Study Group, with some reservations about state-by-state comparisons. Appendices include names of subgroup participants, the list of commissioned papers, a copy of Public Law 98-511 Section 405(e), a chronology of NAEP, and a description of the Elementary/Secondary Information Data System.

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226

EJ357478
A Consumer's Guide to a National Census of Educational Quality.
Lerner, Barbara
Peabody Journal of Education, v63 n2 p187-208 Win 1986
Available from: UMI
Document Type: JOURNAL ARTICLE (080); POSITION PAPER (120)
Journal Announcement: CIJNOV87

A national census of educational quality is advocated to keep a constant check on the overall quality of American education. Why the National Assessment of Educational Progress (NAEP) cannot fill the role is explained, and specific recommendations of what should be included in the census are enumerated.

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227

EJ356867
Good News, Bad News.
Baratz-Snowden, Joan
Change, v19 n3 p50-54 May-Jun 1987
Available from: UMI

The performance of black students on standardized tests is still significantly below that of their white counterparts. Data on black performance on standardized tests and trends on the factors that affect that performance are examined. The OERI study on Poverty, Achievement and the Distribution of Compensatory Education Services is discussed.

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228

EJ356732
N.A.E.P.: Students Aren't Literate Enough.
American School Board Journal, v174 n6 p14 Jun 1987
Available from: UMI

According to a National Assessment of Educational Progress report, most American school children have mastered reading and writing fundamentals without learning how to analyze, evaluate, and extend ideas they read and write about. To address this "surface understanding" problem, the report recommends literacy programs aimed at high risk populations.

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EJ354666
Gender Differences in National Assessment of Educational Progress Science Items: What Does "I Don't Know" Really Mean?
Linn, Marcia C.; And Others
Journal of Research in Science Teaching, v24 n3 p267-78 Mar 1987
Available from: UMI

Discusses the gender differences revealed on the science content items of the National Assessment of Educational Progress Science Assessment. Examines explanations for the differences, including differential prior instruction, differential response to uncertainty, differential response to figurally presented items, and different attitudes toward science.

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ED284904

Norm-Referenced Standardized Mathematics Achievement Tests at the Secondary School Level and Their Relationship to the National Assessment of Educational Progress Content Objectives and Subobjectives.

Solomon, Alan

Apr 1987

50p.; Paper presented at the Annual Meeting of the American Educational Research Association (Washington, DC, April 20-24, 1987).

EDRS Price - MF01/PC02 Plus Postage.

A panel of expert referees from the Philadelphia school district categorized items from secondary-level standardized mathematics tests according to National Assessment of Educational Progress (NAEP) subobjectives for mathematics. The following tests were covered by the study: (1) California Achievement Tests (Levels 19 and 20); (2) Comprehensive Tests of Basic Skills (Levels J and K); (3) Metropolitan Achievement Tests (Advanced 1 and 2); (4) SRA Survey of Basic Skills (Levels 36 and 37); and (5) Stanford Achievement Tests (Advanced, Task 1, and Task 2). Of these 11 tests, 7 appropriate tests were considered for each grade grouping (9, 10, 11, 12). Chi-square one-sample tests showed that these tests did not differ significantly in terms of the number of NAEP objectives or subobjectives addressed on a grade by grade basis. However, the proportion of NAEP objectives covered by the tests showed that the NAEP system is not being followed by publishers of standardized norm-referenced mathematics tests in the secondary school grades. All tests together addressed 82% of NAEP objectives and 48% of subobjectives, but no individual test covered more than 65% of NAEP objectives or 20% of subobjectives. All objectives and subobjectives addressed by these tests are reported in tables.

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ED284900

Reading Assessments: Practice and Theoretical Perspectives. Research on Instructional Assessment: Instructionally Relevant Reading Assessment.

Linn, Robert L.; Valencia, Shelia W.

California Univ., Los Angeles. Center for the Study of Evaluation.

Aug 1986

47p.

EDRS Price - MF01/PC02 Plus Postage.

This paper evaluates widely used, standardized tests of reading within the framework of four interdependent reading components: (1) decoding speed and accuracy; (2) accuracy, fluency, and flexibility of determining semantic meaning of words; (3) sentence comprehension; and (4) passage dependent sentence comprehension. Among the types of standardized reading achievement tests are the group-administered survey tests, criterion-referenced testing systems, testing components of major basal reading series, individually-administered diagnostic reading tests, informal reading inventories, state assessment programs, and instruments of the National Assessment of Educational Progress. Types of score reports range from a single norm-referenced, global score to highly specific component scores based on only three or four test items. There is a relatively poor match between current theory and experimental research on the reading process and existing standardized tests of reading. Suggestions are provided for development of new measures of reading comprehension that are more consistent with modern theoretical and experimental research on the reading process. Eight pages of references are included.

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232

ED284899
R&D Needs for Assessment in the Content Areas. Testing Study Group: Content Assessment. Report on Research Needs.
Aschbacher, Pamela R.; Herman, Joan
California Univ., Los Angeles. Center for the Study of Evaluation.
Mar 1987
27p.
EDRS Price - MF01/PC02 Plus Postage.

This paper surveys the status of current state and district level practice in content assessment, highlights related research efforts currently underway, and identifies high priority areas for subsequent research in content assessment. A needs assessment for research in content area assessment was conducted during 1986 by the Center for Research on Evaluation, Standards, and Student Testing (CRESST). District level administrators identified social studies and science as top priority areas for content testing. About half the districts surveyed currently assess these areas, primarily using locally produced tests. At the state level, there has been little recent assessment of content areas other than the National Assessment of Educational Progress, and that which exists appears rather limited in scope and technique. A survey of state directors of research and assessment in 1986 confirmed that science and social studies are top priority areas for current and anticipated testing for purposes of accountability, curriculum planning, and student diagnosis. Most of current research on the content areas focuses on issues in learning, instruction, and curriculum rather than on assessment issues. Future research and development efforts should: (1) identify which facts, concepts, and processes should be assessed in each field; (2) address how best to assess the targeted constructs and processes; and (3) determine how to facilitate the use of new content area measures.

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233

ED284742
Mathematics Attitudes and Achievement: Gender Differences in a Multivariate Context.
McConeghy, Janet I.
24 Apr 1987
80p.;
EDRS Price - MF01/PC04 Plus Postage.

As the technological revolution continues, there is an increased emphasis on mathematics and science. Many people feel that there are significant gender differences in both attitudes toward, and achievement in, these subjects. This study examined some of the attitudes toward mathematics and achievement in mathematics as measured by the 1977-78 and 1981-82 National Assessment of Educational Progress (NAEP) Mathematical Assessments. It explored the relationships between them, and between other types of influences, including those of community, school, and home, as well as gender, age and year. Attitudes toward mathematics were measured using a group of 14 statements which were used to construct three specific attitude scales and an overall Math Attitude Index. Achievement was measured using the NAEP percentile scores. Various analyses indicated that parents' education and race of student had the strongest influence and gender the least influence on achievement of the six significant independent variables identified. It is suggested that schools need to develop methods to encourage and help students who have been identified as being members of some of the subpopulations that have negative attitudes and lower achievement scores.

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234

ED284463
College Enrollment Patterns of Black and White Students.
Chaikind, Stephen
Decision Resources Corp., Washington, DC.
[1987]
41p.;
EDRS Price - MF01/PC02 Plus Postage.

Trends in college attendance of black and white high school graduates were examined, with a focus on whether black and white students of similar academic achievement and economic levels attend colleges at similar rates. Data were obtained from the Current Population Survey, the Higher Education General Information Survey, and the High School and Beyond Study (HS&B). The racial or ethnic distribution of persons who have completed college is examined, along with enrollment patterns of persons over age 24. Key findings include: the number and proportion of black 18- to 24-year olds who attended college increased substantially between 1970 and 1985; within the same academic achievement groups, black high school graduates attend college in proportions equal to or greater than the proportions of whites who attend; within the same income groups, black high school graduates attend college in proportions equal to or greater than the proportions of whites who attend; and data from the National Assessment of Educational Progress indicate that substantially fewer black than white 11th graders read at the level expected of college freshmen. A five page reference list and numerous tables are provided.

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ED284164
The Subtle Danger: Reflections on the Literacy Abilities of America's Young Adults.
Venezky, Richard L.; And Others
Educational Testing Service, Princeton, NJ. Center for the Assessment of Educational Progress.
Jan 1987
67p.;
EDRS Price - MF01/PC03 Plus Postage.

Noting that the demands of literacy have increased and that it is in this context that literacy performance must be evaluated, this book summarizes the most important results of the Young Adult Literacy Assessment, and provides thoughtful analysis of their implications from the standpoint of unemployment, economic competitiveness, the problem of poverty, and inequality among subgroups in the population. The first chapter of the book provides an orientation to the problem of literacy, defining literacy and differentiating between schooling and education, while the second chapter traces the history of literacy and its assessment in the United States. The Young Adult Literacy Assessment is described in the third chapter, including sampling methods and text types used, and how the results are categorized, while the fourth chapter discusses the resulting assessment of abilities based on document types and processing demands. The fifth chapter compares the performance of selected subgroups, classified by factors including socioeconomic status and educational level. The final chapter draws some conclusions about ways in which literacy levels can be increased, and a brief epilogue puts the current literacy situation into a less than catastrophic perspective. Several pages of notes and references are appended.

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236

ED283849

Scoring Writing Samples in Educational Research: Selecting and Developing an Appropriate Procedure for Evaluating Elementary Student Writing.

Hawk, Anne W.; Cross, James Logan
23 Apr 1987
29p.;
EDRS Price - MF01/PC02 Plus Postage.

This study involved the selection and adaptation of a writing assessment procedure for teachers and researchers in the Duval County Public Schools (Florida) to use in assessing changes in writing ability among elementary grade students. Through a review of the literature, four writing assessment procedures (analytic, holistic, focused holistic, and primary trait) were identified. The primary trait scoring (PTS) system, a norm-referenced system developed by the National Assessment of Educational Progress, was selected and adapted to assess the quality of writing traits. Three writing traits (mode, organization, and mechanics/grammar) were measured. District test developers and language arts staff collaborated to develop a writing prompt for each grade level (two through five). Twenty-four classroom teachers and 690 students participated in the study. Results indicated that: (1) evaluators at the district level with assistance from other qualified personnel can select, adapt, and verify a writing procedure that is appropriate for use in both research and instruction; (2) a systematic procedure involving both school-based and district-level personnel can be employed to select and adapt a scoring system not only for a specific research undertaking but also for general use; and (3) the reliability and validity of the instrument can be confirmed through local research. Appendices include composition scoring guides and descriptive questions (writing prompts) for each grade level.

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ED283841

The Relationship Between Minimum Competency Testing Programs and Students' Reading Proficiency: Implications from the 1983-84 National Assessment of Educational Progress in Reading and Writing.

Winfield, Linda F.
Educational Testing Service, Princeton, N.J.
Mar 1987
111p.
EDRS Price - MF01/PC05 Plus Postage.

The two exploratory studies presented in this research report used multilevel data obtained in the 1983-84 National Assessment of Education

Progress (NAEP) to investigate the relationship between minimum competency testing (MCT) programs and student reading proficiency. A "school effects" paradigm was used in Study 1 to assess the effect of a school-level MCT program after adjusting for students' age, sex, region of the country, family background, school-level composition, socioeconomic status, students' academic behaviors, school-level remedial program, and instructional dollars per pupil. Within-race/ethnic group analyses were conducted to investigate whether or not the effect of MCT programs on reading proficiency was similar for each race/ethnic group. The second study examined the relationship between the type of state testing program and reading proficiency for each grade cohort after adjusting for students' age, sex, district and school-level SES variables, family background, and race. These studies demonstrate the limits and potential of using NAEP data to inform public policy issues. Appendices include (1) a description of the NAEP proficiency levels; (2) the coding procedures and listing of types of MCT programs by state; (3) a description of the NAEP variable "size and type of community;" and (4) nine pages of tables containing supportive data.

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ED283835

Learning by Doing: A Manual for Teaching and Assessing Higher-Order Thinking in Science and Mathematics.

Educational Testing Service, Princeton, N.J.; National Assessment of Educational Progress, Princeton, NJ.
May 1987
49p.;
EDRS Price - MF01/PC02 Plus Postage.

The National Assessment of Educational Progress (NAEP), the Nation's Report Card, has developed and pilot-tested a variety of hands-on science and mathematics tasks. These tasks were developed as prototypes for use in future national assessments, but the concepts measured and the innovative approaches used are equally suitable for classroom learning. This manual is designed for use by science and mathematics coordinators and teachers to share these techniques. To develop these hands-on activities, NAEP invited the views of science and mathematics educators and worked closely with members of the United Kingdom's Assessment of Performance Unit at Kings College, London University. Tasks were administered as group activities, station activities, and as complete experiments. About 1,000 third-, seventh-, and eleventh-grade students from 12 school districts across four regions of the country were assessed, with approximately 100-300 responses obtained for each task. Results showed that students responded to the tasks, and results conformed to expectations about basic developmental trends in thinking skills. In response to the pilot study, 11 tasks field-tested by NAEP were selected to show a range of possibilities for classroom and assessment use. Each task is presented by thinking skills necessary for successful student performance and the administration mode used by NAEP. Hierarchically arranged tasks are divided into the following sections: (1) classifying; (2) observing and making inferences; (3) formulating hypotheses; (4) interpreting data; (5) designing an experiment, and (6) conducting a complete experiment. The presentation for each task includes a brief explanation of the activity, the student response sheet, a list of the equipment used, and one or more exemplary student responses.

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ED282929
A Comparison of Guided Assignments and NAEP Format Tests on Adolescent Response to Literature.
Appleman, Deborah
23 Apr 1987
46p.;
EDRS Price - MF01/PC02 Plus Postage.

This study investigated the effects of heuristically based assignments and tests on adolescents' written responses to literature. In order to examine both tests and instruction, two separate but related experiments were conducted. Experiment 1 investigated whether the inclusion of guided prewriting on essay tests for two poems and two short stories would result in higher quality written responses than tests that did not include prewriting. Experiment 2 explored the effects of a series of five heuristically based lessons on the posttest essay scores on two poems and two short stories. Approximately 100 11th and 12th graders participated in each experiment. Analyses of the data indicated a significant treatment effect on one of the four test measures in Experiment 1, with students who received the experimental test format performing significantly better than students who received the National Assessment of Educational Progress (NAEP) format test. There were no significant effects for the instructional treatment in experiment 2. Reading ability and genre had significant effects on the quality of students' written responses to literature in both experiments, with higher ability students receiving significantly superior mean scores and all students performing better on tests for short stories than on tests for poems. Implications for teaching and further research into longitudinal training in heuristic procedures are discussed. A seven-page bibliography, a sample NAEP test, a sample experimental test, and a sample lesson follow the study.

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ED282928
Grammar, Punctuation, and Spelling: Controlling the Conventions of Written English at Ages 9, 13, and 17. The Nation's Report Card.
Applebee, Arthur N.; And Others
Educational Testing Service, Princeton, N.J.; National Assessment of Educational Progress, Princeton, NJ.
Jun 1987
49p.;
EDRS Price - MF01/PC02 Plus Postage.

The National Assessment of Educational Progress (NAEP) administered a writing task to nationally representative samples of 9-, 13-, and 17-year-old students in order to assess their abilities to use the conventions of written English. Approximately 2,000 students at each age level completed this task as part of NAEP's 1984 writing assessment. Subsamples were drawn from the total national sample. In order to have reasonable precision in comparisons between black students and white students, the black students were subsampled at a higher rate. In addition to measures of overall quality, each writing sample was analyzed for a variety of aspects of spelling, word choice, punctuation, and syntax. Experienced English teachers coded each sentence type and error on the papers. The analyzed papers were then entered into a computer-readable database. Analyses of data indicate that older students are more proficient than younger ones in their use of written language at both the sentence and the word levels: (1) older students use a greater proportion of complex sentences; (2) spelling improves markedly at the older ages; (3) students at all three ages make few errors in word choice or capitalization; and (4) the majority of students make very few punctuation errors. Because there is no consistent profile of the types of mistakes poor writers make, diagnosis of individual difficulties and instruction targeted at needed skills is recommended over large group drill and practice activities. The appendix contains the scoring guide outline.

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ED282887
Preliminary Design: State-by-State Assessment of Student Achievement.
Selden, Ramsay
Sep 1986
9p.
EDRS Price - MF01/PC01 Plus Postage.

In November, 1985, the Council of Chief State School Officers adopted a plan for developing educational indicators. The plan provided for the development of a common measure of student achievement to be collected across states beginning in 1988-89. In order to design a student achievement assessment program, the states were asked to give their opinion on the following issues: specific subject matters to be assessed; type of information that the assessment program would provide; and procedures for collecting data. On the basis of the responses from 20 states, a preliminary assessment program was developed. Responses suggested that subject matter and assessment specialists, considering the broadest instructional content and priorities, should establish the subject specification frameworks. Information should be reported as single value for each subject at each grade level. Reading, writing, English and mathematics should be assessed every other year, and science and social studies every four years. The Council of Chief State School Officers (CCSSO) or another suitable organization should govern the data collection procedures. Test administration should be monitored, and sampling, scoring, and data processing should be conducted through a single, central project funded by the states and administered by CCSSO.

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ED281162
Learning to Be Literate in America: Reading, Writing, and Reasoning. The Nation's Report Card.
Applebee, Arthur N.; And Others
National Assessment of Educational Progress, Princeton, NJ.
Mar 1987
52p.;
EDRS Price - MF01/PC03 Plus Postage.

Intended for educators, policymakers, and anyone concerned with the nation's reading skills, this booklet draws on four recent reports in the Nation's Report Card series, which are based on findings of the National Assessment of Educational Progress (NAEP). The first chapter discusses two important components of literacy--the ability to achieve a surface understanding of written materials and the ability to reason effectively about one's reading and writing. NAEP results are briefly discussed as a basis for the second chapter, which presents an overview of literacy development in America. The third chapter focuses on those who are at risk because of poor literacy skills, particularly children and young adults from minority groups and children without home support for literacy. The fourth chapter discusses the impact that an early exposure to print, appropriate instruction and homework can have on literacy skills. The final chapter explores two important initiatives for educators, policymakers, and the nation: (1) the at-risk population must be provided with targeted help to ensure that it has the opportunity to develop the literacy skills necessary for full participation in this society, and (2) educational approaches must be modified so that all children learn to reason more effectively about what they read and write. Recommendations derived from these initiatives are outlined for policymakers, administrators, and teachers. Graphs and statistical data are included.

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ED280068
National Assessment of Educational Progress Writing Proficiency: 1983-84 Catholic School Results and National Averages. Final Report.
Lee, Valerie E.
National Catholic Educational Association, Washington, D.C.
1987
30p.;

Intended to enable Catholic educators to evaluate and compare the writing progress of their students to that of the nation as a whole, this report presents writing achievement data of Catholic school students in grades 4, 8, and 11, assessed in 1983-84 by the National Assessment of Educational Progress (NAEP). A summary of the findings of the NAEP Reading Report, a complementary study, is presented and discussed in terms of a larger school-based context. The first of three sections reporting NAEP writing results presents comparisons based on the following factors in student' background: demographic characteristics, parental education, and residential location. The second section provides overall score comparisons, while the third section analyzes the writing proficiency scores in terms of grade level, school grouping, and racial/ethnic group. The major findings derived from these comparisons indicate that (1) writing scores in both types of schools are not very high, on average; (2) Catholic school students write better than the national average at all three grade levels; (3) students gain more writing skills in late elementary and middle school than they seem to during secondary school; (4) on average, girls are considerably better writers than boys in both types of schools and across all grade levels; and (5) minority students (Black and Hispanic) score considerably below White students in writing in both type of schools.

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ED280054
The Time Has Come.
Maxwell, John C.
National Council of Teachers of English, Urbana, Ill.
Apr 1987
3p.;
EDRS Price - MF01/PC01 Plus Postage.

The report by the National Assessment of Educational Progress entitled "Poor Writing Performance Blamed on Scant Writing Practice" makes it clear that little progress has been made in the improvement of students' writing. This is true in part because the conditions for teaching writing are unsatisfactory. The time has come to undertake a major series of efforts to alter public and administrative attitudes on the matter of class size, teacher load, and other circumstances that have negative effects on the teaching of writing. The headquarters staff at the National Council of Teachers of English, in cooperation with its Standing Committee on Affiliates, has been developing materials to launch public relations efforts on issues that affect the teaching of English. Research shows a need for radical reduction in class size and radically different methods of instruction. Professionals in the field of English need to speak out loudly on the issues of class size, workload, and the general conditions for teaching writing.